SECTION 1

GENERAL INFORMATION

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We are pleased to offer you another fine GalFab product. We combine experience, innovation, dependability, and craftsmanship to provide you with sound equipment backed up by business integrity and technical support. We stand ready to assist you in fulfilling all of your equipment requirements.

MODEL NO. OR75174T121

SERIAL NO. 5107

JOB NO. 22623

DATE 7/16/2018

GalFab 612 W. 11th St
Winamac, IN. 46996
574-946-7767

GALFAB WARRANTY POLICY

Galfab, a Wastebuilt company warrants only products of its manufacture against operational failure caused by defected material or workmanship which occurs during normal use within two years from the date the product was put into service. **A product registration card must be filled out and returned to the factory for warranty to be considered**.

Galfab makes no warranty on any of its equipment used in any way except as it was designed, intended, and sold to perform. Any misuse, damage due to an accident, outside alterations or negligence voids applicable warranty.

No freight or travel cost will be covered by this warranty. All labor cost allowed shall be in accordance with established rates. In case of alleged defects, products shall be returned to Galfab with transportation charges prepaid.

Galfab will replace all parts that prove to be defective within the warranty time frame after inspection at our factory.

Warranty for replacement parts is limited to the remaining portion of the original warranty, or warranted for 30 days from date of shipment.

Galfab does not assume any liability for loss of product, time, or any other consequential damages.

All claims will be processed through an authorized designee of the factory, or the factory.

WARNING!

If this equipment is not used properly, serious injury or death may occur. Anyone using this equipment must be properly trained and made aware of how dangerous the operations may be. It is important that anyone operating, adjusting, or servicing this equipment read this manual!

NOTE: When ordering parts or requesting technical assistance, please refer to the hoist serial number, model number, and job number. These numbers expedite the efficiency of your request. All of these numbers are listed in the front of this manual. The hoist serial number is welded into the inside of the tubing frame at the front (near the cab) of your hoist. There is also an identification tag on the front outside tube of the hoist also near the cab on the driver's side.

Notes

GALFAB

STANDARD TANDEM HOISTS
MINIMUM RECOMMENDED TRUCK SPECIFICATIONS

50,000 LB, 60,000 LB, AND 75,000 LB HOISTS

18,000# FRONT AXLE WITH POWER STEERING

44,000# REAR AXLE WITH WALKING BEAM SUSPENSION

TOTAL BENDING MOMENT (BOTH FRMA CHANNELS) 2,400,000 IN LBS

36,000 P.S.I. CHASSIS FRAMES – MINIMUM SECTION MODULUS 32 IN. – CUBED

55,000 P.S.I. OR MORE, CHASSIS FRAMES – SECTION MODULUS 24 IN. – CUBED

WARNING: THE OPERATOR AND/OR OWNER IS RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL WEIGHT REGULATIONS

!!CAUTION!!

THIS EQUIPMENT SHOULD BE OPERATED BY PROPERLY TRAINED PERSONNEL. THE HOIST SHOULD NO BE USED TO LIFT AND HAUL ANY WEIGHT THAT IS BELIEVED TO EXCEED THE LOAD RATING OF ANY OF THE INDIVIDUAL COMPONENTS OF THE ENTIRE PIECE OF EQUIPMENT. (EXAMPLE: HOIST, TIRES, TRUCK CHASSIS, SUSPENSION, ECT.) IMPROPER USE, MISUSE, OR LACK OF MAINTENANCE COULD CAUSE INJURY TO PERSONS AND/OR DAMAGE TO PROPERTY.

GALFAB INC

612 WEST 11TH STREET WINAMAC, IN 46996

PH 574-946-7767 FAX 574-946-7994

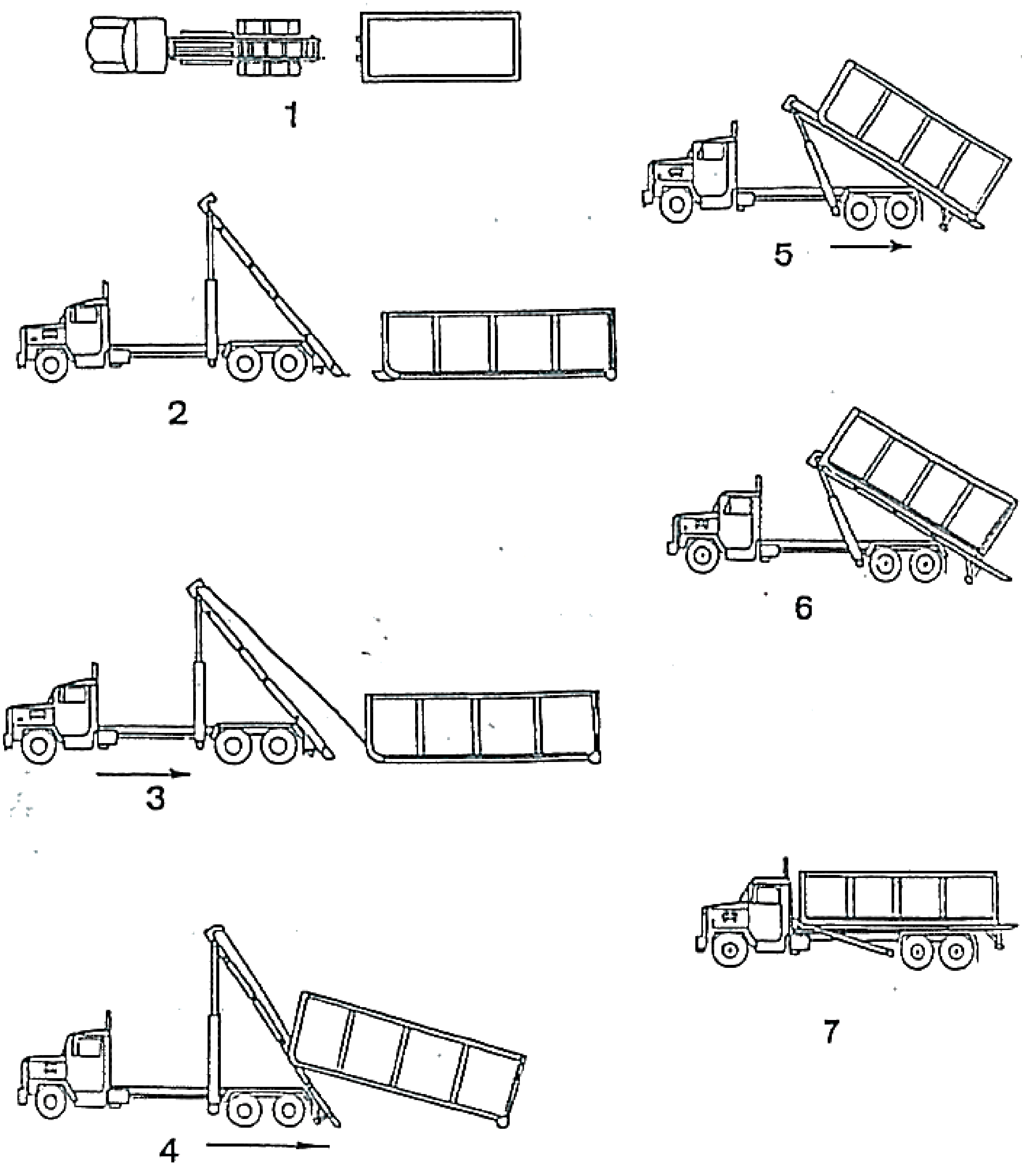
SECTION 2

OPERATING INSTRUCTIONS

SAFETY FIRST

1. READ AND UNDERSTAND the operator's manual before operating the hoist or any related equipment. Hydraulic systems are affected by the integrity of their components (i.e. hoses, valves, etc.}, and possible stored potential energy.
2. Safety decals and reflectors must be clean, in place, and clearly visible.
3. NEVER position yourself, or allow any other person at any time to be on or under any portion of the hoist. If the hoist is elevated, always use the hoist props, and properly block the hoist.
4. Make sure the working area is clear of personnel. Extreme care must be taken if personnel or vehicles are present.
5. NEVER operate the unit until the hydraulic system, including the cylinders and lines, are full of oil, free of air, and in good working condition.
6. DO NOT use any method or device to hold a control valve open which will prevent the spring centered valve handle from automatically returning to center. Spring centered valves are intended to stop their controlled actions when the handle is released.
7. Check the overhead area for low power lines and other overhead obstructions. DO NOT operate the hoist if there is not sufficient overhead clearance.
8. DO NOT use a chain, rope, or any other connecting device between the winch cable hook and the container.
9. DO NOT move the truck while the hoist and container are raised. A raised load creates a top-heavy unstable load and potential overhead problems.
10. DO NOT load, dump, or unload a container on uneven ground.
11. Check the winch cable for wear and fraying. Replace the cable if defective before using the hoist.
12. DO NOT allow the cable to rub on any surface when loading or unloading a container.

    Always keep the cable centered on the hoist frame.
13. DO NOT allow the cable to become slack when loading or unloading a container. This may cause the container to disconnect.
14. DO NOT operate the winch cylinders to load or unload a container unless the front of the hoist frame is above the top of the truck cab.
15. DO NOT pressure wash the dirty outside grease from the rollers, sheaves, rear hinges, cylinder ends or the winch cable. This grease is used to keep dirt out and the lubricating grease in place.
16. DO NOT allow any personnel to be on, close to, behind, beside, or under a unit while a container is on an elevated hoist.
17. The container MUST always be fully engaged in both the front stops and the rear hold down system.


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GALFAB, INC.

OPERATING INSTRUCTIONS
OR & I0 TYPE HOISTS

READ BEFORE OPERATING HOIST

The following information is a guideline for operating your Roll-Off Hoist. The comments are not intended to cover every possible situation that could arise while operating the hoist.

NOTE: See Department of Transportation Regulations Part 393.134, Cargo securement for Roll-On/Roll-Off or Hook Lift containers. Rule effective date December 26, 2002.

WARNING!! Before using your hoist, be sure that the operating area is clear of people. Check the overhead area for low power lines and other overhead obstructions, which may endanger personnel or damage equipment. The loading, unloading and dumping area should be level and solid.

LOADING THE CONTAINER ONTO THE HOIST

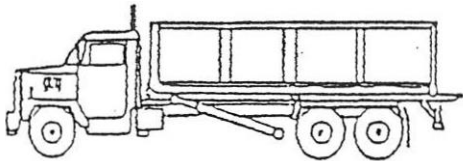
1. Position the Roll-Off Truck as squarely with the container as possible, aligning the container long sills with the hoist (Fig. 1). Lock the truck brakes. Inspect the hoist, cable, fluid levels, and the container to be certain all items are in good working order. Follow your employer's safety check list.
2. Make sure the brakes are locked, then engage the PTO (power take off).
3. Retract the winch cylinders, pull the cable out to the rear of the hoist and raise the hoist so that the ground roller touches the ground (Fig. 2).
4. Connect the cable eye to the container hook (Fig. 3).

WARNING!! Check to be sure that the cable or receiver connection to the container is securely attached and in good condition. Never attempt to lift a container that is heavier than the load rated capacity of any of the individual components of the Roll-Off Hoist.

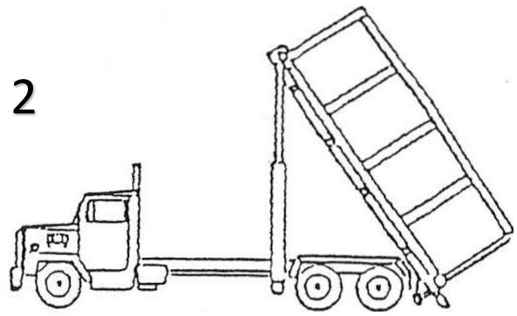
5. Release the truck brakes and pull the container onto the hoist by allowing the truck to roll under the container (Fig. 4). The container long sills must be riding on the hoist rollers (Fig. 4).Ga1Fab recommends adjusting the hoist angle to match the angle of the container when the nose cone passes the rear hinge (Fig.4).
6. When the center of gravity of the container is forward of the rear hinge, lower the hoist to the top of the truck cab (Fig. 5). Lock the truck brakes when the container is completely off the ground and continue pulling the container forward until it is securely locked into the front stops (Fig. 6). In addition to the front stops, the container and hoist must always have a rear hold-down device. Lower the hoist to the full down position (Fig. 7). Always power the hoist down; do not allow the hoist to gravity down.
7. Always lock the brakes when you are out of the truck. Disengage the PTO before moving the truck.
8. NEVER position yourself or allow any other person to be on, close to, behind or under an elevated hoist that has a container on it

UNLOADING A CONTAINER

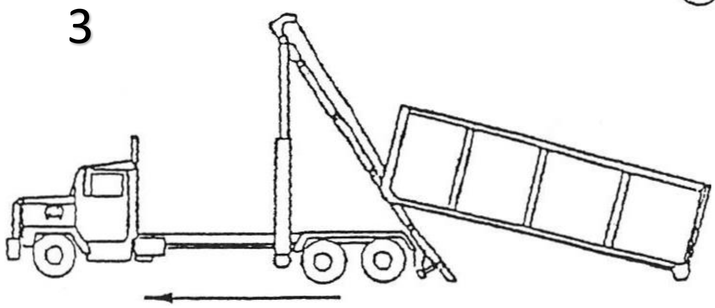
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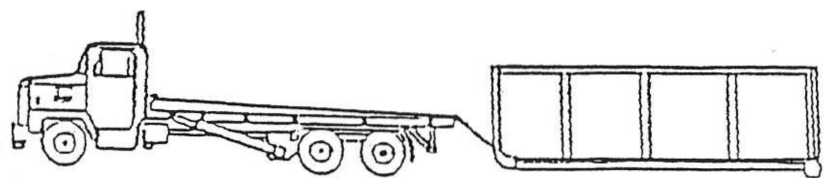
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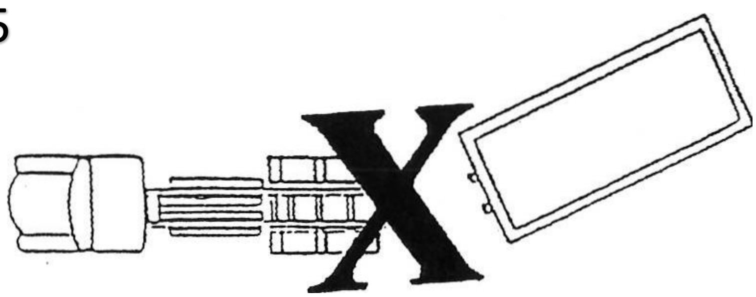
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DATE 11 / 12 / 2015 **INFORMATION BULLETIN** BULLETIN NO. IB_0005

SUBJECT:	TO:	APPLICATIONS:
SAFETY	ALL GROUPS	ROLL-OFF HOIST

DASH MOUNTED HOIST UP LIGHT

1.) MOUNTED "IN THE LINE OF SIGHT" BY THE DRIVER SETTING IN THE DRIVER'S SEAT FACING FROWARD.

2.) MOUNTED SO NO ITEM (GLOVES, RAGS, COATS, ETC.) CAN BE PLACED SO TO OBSCURE THE LIGHT FROM SIGHT.

THE DASH MOUNTED 2" HOIST UP STROBE LIGHT IS INCLUDED IN ALL CONTROL TOWERS.

CHECKED BY ENGR: BG CHECKED BY SALES: JH

612 WEST 11TH STREET
PO BOX 39
WINAMAC, IN 46996
PHONE : (574) 946-7767

GALFAB
A WASTEBUILT COMPANY

GALFAB, INC.

OPERATING INSTRUCTIONS
OR & I0 TYPE HOISTS

READ BEFORE OPERATING HOIST

UNLOADING THE CONTAINER FROM THE HOIST

1. Make certain there is ample space for the container to occupy. Check for overhead clearance and that the area is clear of personnel. If your truck is equipped with a tarper, make sure the tarper is not in a position to be damaged before raising the hoist (Fig. 1).

2. Lock the brakes, engage the PTO (power take off) and raise the Roll-Off Hoist as high as necessary to allow gravity to roll the container off the unit as the winch cylinders are retracted (Fig. 2). Tension must be maintained on the cable at all times or the container may disconnect prematurely.

3. When the rear rollers of the container are on the ground, release the truck brakes and continue to retract the winch cylinders. This will allow the truck to roll forward out from under the container (Fig. 3). Make sure the area in front of the truck is clear of people and obstructions.

WARNING!! Always keep the container long sills riding on the hoist side rollers.

1. After the container is completely on the ground, drive the truck forward a few inches and lower the hoist (Fig. 4). Always power the hoist down; do not allow the hoist to gravity down. Allow the cable some free travel, lock the truck brakes, and disconnect the cable eye from the container hook.

2. Secure the cable to the hoist. Snug the cable and disengage the PTO before moving the truck.

3. CAUTION: Always keep the hoist and container in a straight line; do not allow an angle to form between the truck and the container (Fig. 5).

GALFAB, INC.

OPERATING INSTRUCTIONS
OR & I0 TYPE HOISTS

READ BEFORE OPERATING HOIST

DUMPING THE LOAD

1. Position the Roll-Off Truck with the container in the area where the container is to be emptied. Lock the brakes on the truck.
2. Before opening the tailgate or raising the hoist, make sure the area is clear of people, low power lines or any other overhead Obstructions which may endanger personnel or damage equipment. Make sure the container is secured to the hoist in the front and rear. NOTE: Always keep the tires properly and evenly inflated.
3. If your truck is equipped with a tarper, make sure the tarper is not in a position to be damaged before opening the tailgate or raising the hoist.
4. With the hoist in the lowered position, open the tailgate on the container and secure the door in the open position using the container manufacturer's recommended procedures.

WARNING!! Container doors are heavy and extreme caution should be used when opening or closing them. Make sure the doors are properly secured following the manufacturer's recommended procedure. Never try to open or close the doors with the hoist in the elevated position.

5. Engage PTO (power take off) and raise Roll-Off Hoist until the container is empty.
6. NEVER position yourself or allow any other person to be on, close to, behind or under the hoist or container.

WARNING!! In the event that all of the load is not discharged or it becomes necessary to move the truck forward, lower the hoist to the down or travel position prior to any forward movement of the truck.

7. When the container is empty, lower the hoist to the full down position. Always power the hoist down; do not allow the hoist to gravity down.
8. Disengage the PTO. Make sure the truck brakes are locked.
9. Close the tailgate and secure the door in the closed position using the container manufacturer's recommended procedures.
10. If your truck is equipped with air locking container hold downs ("THE HOOKER"), make sure at least one of the hold down arms on each side of the truck is properly engaged on the long sills of the container.

THE FOLLOWING MINIMUM PRECAUTIONS MUST ALWAYS BE OBSERVED

DO NOT adjust the hydraulic pressure setting without the use of an accurate pressure gauge placed in the hydraulic system on the pressure side of the control valve. NOTE: DO NOT SET THE PRESSURE TO EXCEED 1850 PSI. FOR 60,000 LB. UNIT, 2000 PSI. FOR 75,000 LB. UNIT@ 1200 RPM WITH 110% +_ PTO. (See maintenance, section 3).

DO NOT operate more than one control handle at a time. The valve is not designed to operate two functions simultaneously.

DO NOT use a locking device to hold a control handle or a spring centered valve open. The valves are designed to return to center when released.

CHECK the cable for excessive wear and replace as needed. (The cable manufacturer recommends changing the cable once a year. See maintenance, section 3).

OBSERVE AND OBEY all caution and warning decals on both the hoist and the container.

DO NOT allow the hoist to gravity down. Always power the hoist down.

DO NOT drive the truck with the PTO engaged.

DO NOT drive the truck unless the hoist is in the complete down position.

DO NOT operate the hoist in cold weather (below 40 degrees F) without warming up the hydraulic oil. (See Cold Weather Start Up Procedure).

DO NOT allow anyone to work on the hoist in the raised position without using the support props and proper blocking.

COLD WEATHER START UP PROCEDURE

Place the PTO in gear and let the engine idle for a few minutes, circulating the hydraulic oil. Run the hoist as slowly as possible until the hydraulic oil is warmed to 40 degrees F. Failure to warm the oil may damage the pump.

LOCKOUT PROCEDURE

The purpose of this procedure is to establish performance habits, which provide for the protection from injury of personnel in, on, or around the equipment during repair, maintenance and other associated activities. Employers may need to add more steps to develop a lockout procedure. A suggested outline to achieve this purpose is:

1. Shut off the truck engine and remove the key from the truck ignition.
2. Maintenance personnel should retain the key in their possession until the work is completed.
3. Tag all the controls to inform all personnel that the equipment is "under repair", "do not operate", or whatever the situation dictates. All affected personnel must be previously informed as to the meaning and appearance of the Lockout Tag.
4. Only an authorized individual should be able to release the equipment after the repair has been made.
5. If the hoist is in the raised position, use the hoist props and place blocking under the mainframe in front of the hoist hinges.

RESPONSIBILITIES OF LOCKOUT PROCEDURE

1. Compliance with and development of the Lockout Procedure shall be the responsibility of the employee and employer.

2. Periodic inspections should be done by the employer to verify the correct use of the Lockout Procedures.

3. All individuals affected must be notified of and trained in the requirements for compliance with the Lockout Procedure.

OPERATOR/EMPLOYEE RESPONSIBILITY

Employees/Operators who work on or use mobile equipment shall be responsible for:

1. Properly using all applicable safety features provided on the equipment.

2. Using equipment only after being properly instructed and trained.

3. Reporting any damage to, or malfunction of, the equipment when the damage occurs or as soon thereafter as practical. Reports must be submitted to the employer or responsible authority. Such reports shall be documented by the employer.

4. Ensuring that the area of operation around the hoist and container is clear of all persons during all phases of the operation.

5. Operating all equipment in accordance with the manufacturer's instructions.

6. Riding only in the cab and not on any other part of the mobile equipment.

7. Do not operate equipment if your work ability is impaired by fatigue, illness, or other causes.

8. BE ALERT TO ALL POSSIBLE HAZARDOUS SITUATIONS AND CONDITIONS.

OWNER/EMPLOYER RESPONSIBILITY

The employer shall properly maintain this equipment to meet all applicable regulatory safety standards and shall be responsible for:

1. Providing instruction and training in the safe methods of operation for employees before assigning them to operate, clean, service, maintain, or repair the equipment.

2. Monitoring the employee's operation of equipment and taking appropriate action to ensure proper use of the equipment, including adherence to safe practices.

3. Establish and install a program of periodic and regular inspections of all equipment. Ensure that all parts, component equipment, and safeguards are in good operating condition and adjustment in accordance with the manufacturer's recommended procedures. This shall include keeping all malfunction reports, and records of inspections and maintenance work performed.

4. Repairing any mechanical malfunction or breakdown that affects the safe operation of the equipment, prior to placing the equipment into service.

5. Ensure that the hoist will not be used to lift and haul any weight that is believed to exceed the load rating of any of the individual components of the hoist. (For example: hoist, tires, truck chassis, suspension, etc.).

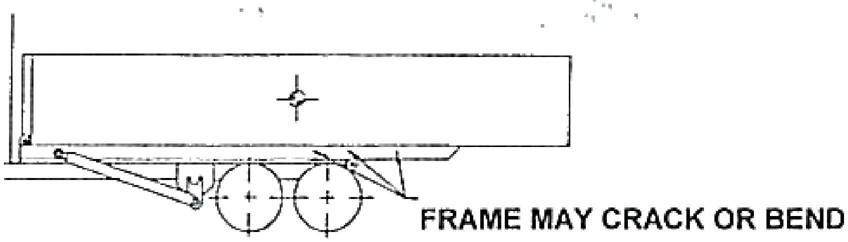
6. Ensuring that component equipment, bodies, or hoist, when raised for service or maintenance, have additional support by utilizing hoist props and any other means necessary as each situation dictates.

7. Establishing and following a strict lockout procedure.

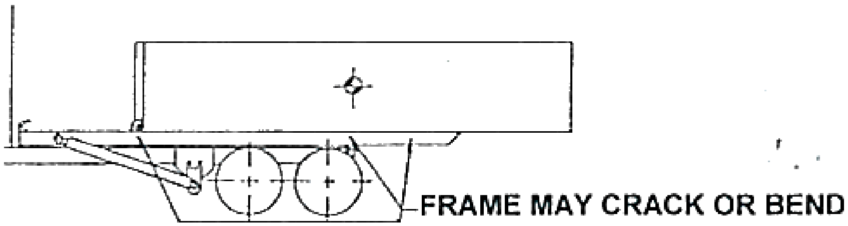
8. The employer shall affix a sign or mark near the cab on the driver's side stating the minimum overhead clearance required for the vehicle height dimension when all equipment, including the tallest container and load, is positioned for travel.

NOTE!! THE OWNER/EMPLOYER AND OPERATOR/EMPLOYEE RESPONSIBILITIES LISTED ARE ONLY A GUIDELINE. THE UNIQUENESS OF EACH OPERATION MUST BE TAKEN INTO CONSIDERATION AND PLANNED FOR BY THE EMPLOYEE/EMPLOYER.

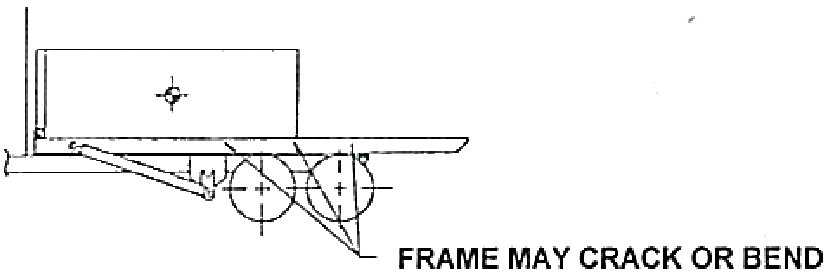
ROLL-OFF HOIST KILLERS--- AS WELL AS UNSAFE



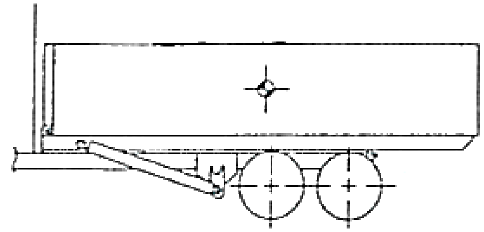
IMPROPER CONTAINER LENGTH



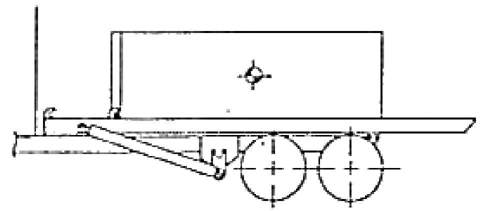
IMPROPER OVERHANG



IMPROPER LOAD TO FRONT



CORRECT METHOD



CORRECT METHOD

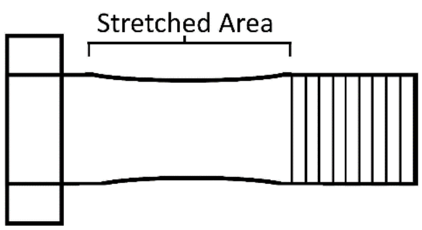
CORRECT & INCORRECT LOAD DISTRIBUTION

SECTION 3

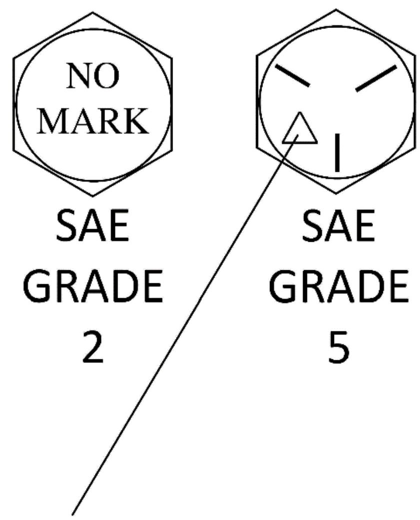
MAINTENANCE

Recommended Torque Valves In Foot Pounds
For SAE GRADE 2 and GRADE 5 coarse thread cap screws and bolts shown are suggested maximum for fasteners, carrying only the residue oil of the manufacturer.

	BLACK BOLTS			PLATED OR OILED BOLTS		
	COARSE THREAD		FINE THREAD	COARSE THREAD		FINE THREAD
BOLT SIZE	GRADE 2	GRADE 5	GRADE 5	GRADE 2	GRADE 5	GRADE 5
3/8"	19	32		13	24	
7/16"	30	50		24	40	
1/2"	45	72		34	58	
5/8"	86	150	180	68	118	130
3/4"	150	250		120	200	
7/8"	140	360		105	280	
1"	220	560		175	450	
1-1/8"	260	700		205	56	
1-1/4"	380	980		300	780	
1-1/2"	580	1200		460	960	



OVER TORQUED BOLT



NOTE: A manufacturers mark on the bolt head assures you that the bolt meets grade requirements without that mark, you have no assurance.

Normal Service Items

Packing, wipers and bushings are considered normal service or replacement items. These items are subject to contamination from external and internal foreign materials, many of which are abrasive in nature, causing abnormal wear or damage to the parts, to the extent replacements are required.

Cylinders may be subject to leaking oil past the seal for various reasons requiring adjustment of the head/packing nuts. This is considered a normal installation and field service adjustment to correct the leakage.

Warning

Before making adjustments or repairs to the cylinder when mounted in the unit, use strong, heavy, positive supports to hold the body from accidentally lowering which can cause severe injury or death and/or damage to the unit and cylinder. Place control valve in the lower position to insure the pressure is relieved in the cylinder. High pressure can cause severe injury or death and/or damage to the unit and cylinder.

Procedure for adjusting head nuts on Telescopic Cylinders

A. For leaking cylinders:

1. Loosen set screw(s) in headnut of leaking stage(s).

2. Tap headnut lightly around circumference with a hammer.

3. Using a chain wrench, back headnut off one half to one full turn. If plunger turns as you are turning the headnut, the plunger will have to be held, preferably with a strap wrench.

4. Cycle cylinder two or three times to reset vee ring packing.

5. Tighten headnut one half turn farther than it was loosened.

6. Tighten set screw(s).

B. For mis-sequencing cylinders:

1. Loosen set screw in headnut on stage that is sticking.

2. Tap headnut lightly around circumference with a hammer.

3. Using a chain wrench, back off headnut one half turn.

4. Cycle cylinder. If cylinder still mis-stages, turn headnut another half turn.

5. Cycle cylinder. If cylinder still mis-stages, tighten the headnut on the next stage that is extending. If plunger turns as you are turning the headnut, the plunger will have to be held, preferably with a strap wrench.

6. Tighten set screw(s).

C. (a) Instructions for Self-Bleed Type Hydraulic Cylinders

After installation, cycle the cylinder approximately 5 times to remove air. If erratic operation occurs, continue to cycle until cycle is smooth. Cylinder will continue to bleed itself during use.

Special considerations:

While the typical 5 cycles is usually sufficient; it may take several more cycles to bleed out enough air to eliminate erratic operation. Not all systems are the same and considerably more cycles may be needed upon installation.

If air pressure is being used to aid in cylinder installation such as to raise mounting to attachment position, it is best to remove air pressure before cycling cylinder.

Older systems may be susceptible to air being induced; make certain that there is no part of the system that can allow air to be drawn into the system.

Avoid hose routing that will cause air to be trapped. Large loops in the hose routing will be areas for air to collect. Also, it may be more difficult to bleed if the reservoir is far from the cylinder and positioned very low with respect to the cylinder.

Always allow adequate air space in hydraulic reservoir per system recommendations.

Upon initial installation it may be necessary to allow time for the air to dissipate from the oil in the reservoir. Check oil level periodically to avoid reservoir being drained during cylinder cycle.

C. (b) Bleeding air from Single-Acting Telescopic Cylinders

1. Empty the dump body of any material.

2. Remove the cover plate from the doghouse of the dump body to access the cylinder bleeder valve.

3. Fully extend the cylinder, raising the empty dump bed.

4. Lower the dump bed to within one foot from the frame.

5. Turn the bleeder valve in a counterclockwise direction. This opens the valve and allows the air to escape from the cylinder.

6. When a steady stream of oil comes from the bleeder, turn the valve in a clockwise direction until it is closed.

NOTE: For consistent operation of telescopic cylinders, it is advisable to bleed the air from the cylinder weekly.

If these procedures fail to correct the problem, contact the factory or an authorized service center for further instructions.

1. A daily check should be made of the cable, cable ends, and lights. Inspect all bolts, pins, and brackets to insure their safe and proper working condition. (Make repairs if needed, before operation.)

2. **Grease:** All grease fittings should be properly greased after forty (40) hours of service or once a week for average usage. Heavy usage may require daily or more greasing.

3. **Lubricating Oil:** Use SAE 30 oil. Lubricate all points every thirty (30) days of service as a minimum, or each time the chassis is serviced.

4. **Cable:** The cable should be thoroughly inspected every forty (40) hours for breakage, unraveling, or flat spots, as well as cable ends, clamps, and pins.

5. **Hydraulic Oil:** The hydraulic oil (Hydrex MV 36 or equivalent) in the oil reservoir should be checked daily. If needed, oil should added. All hydraulic cylinders need to be retracted when oil is added to prevent over filling the system. Oil that is dirty or smells burned should be replaced. If, in a cold-weather operation a thinning oil has been added to the hydraulic system, then all of the oil should be replaced in the spring. NOTE: The use of thinning oil is NOT recommended by GalFab. SYSTEM OPERATION PRESSURE: 2300 PSI

6. **Oil Filter:** The hydraulic oil filter element should be replaced after thirty (30) days of service and regularly once a year thereafter, or whenever the gauge (if equipped) would indicate that the oil filter needs changing.

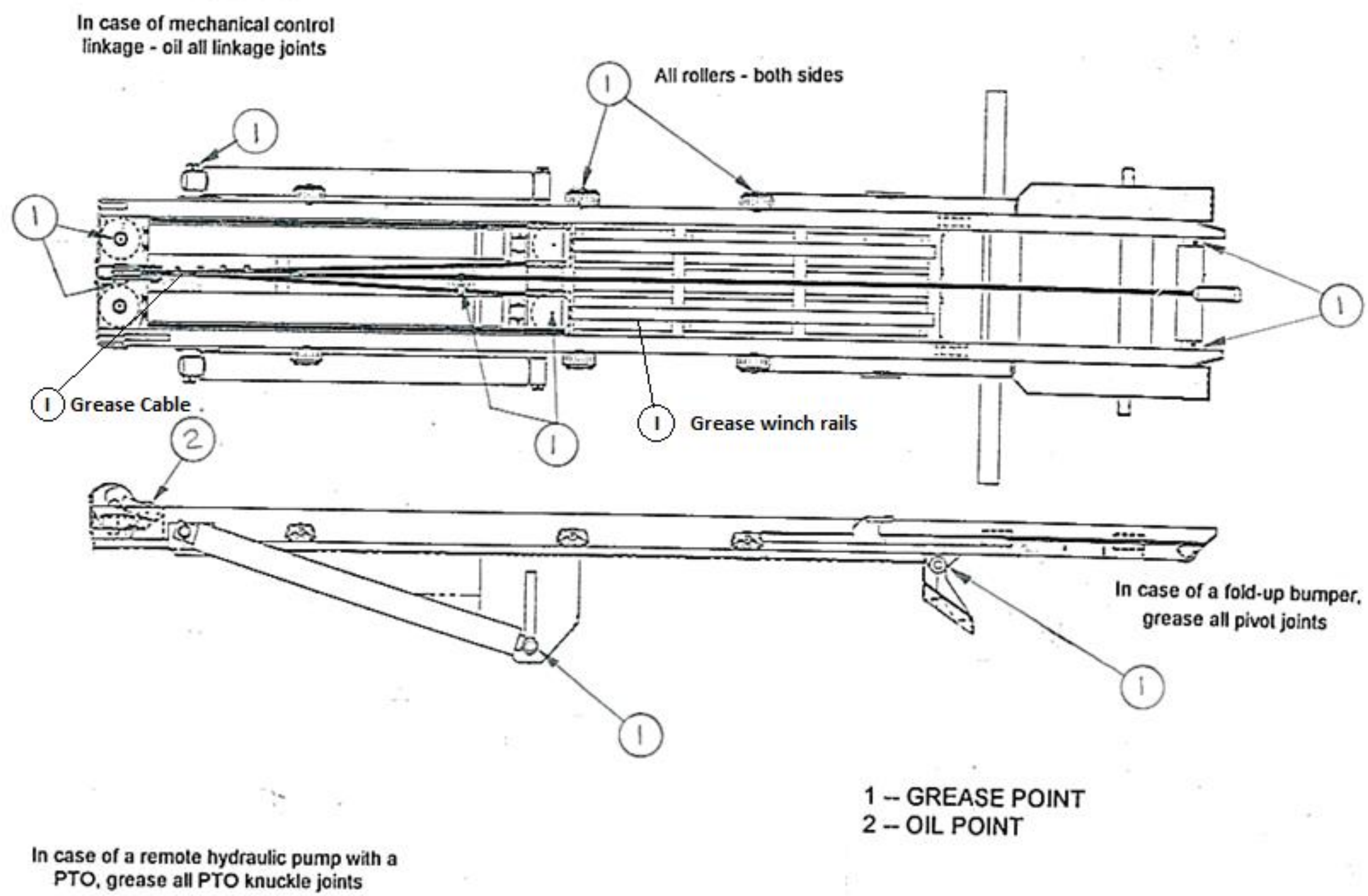
7. **Mechanical:** All nuts, bolts, shafts, cotter keys, etc., must be checked and properly retightened after one week in service, and once a month thereafter.

8. **Cleaning:** Warning! Pressure washing the hoist can deprive bearing surfaces of necessary lubricants. Pressure washing should not be done, serious bearing damage may be the result.

9. **Props:** Always use the hoist props, with the hoist resting solidly on them, to perform any work or maintenance on or under a roll-off hoist. Do not attempt to repair a hoist or container while a container is on a hoist.

10. **Danger:** Hoists and containers can be dangerous pieces of equipment, use common sense and good judgment while performing any maintenance or repairs

LUBRICATION DIAGRAM

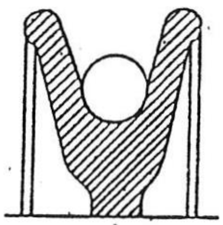


INSPECTION OF SHEAVES

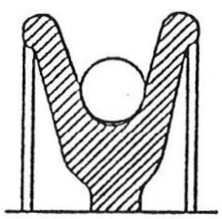
Under normal conditions, machines sections should receive periodic inspections, and their over-all condition recorded. Such inspections will include the sheaves, and any other parts that may come into contact with the wire rope and subject it to wear. As an additional precaution, rope related working parts, particularly in the areas described below, and should be re-inspected prior to the installation of a new wire or rope.

The primary item to be checked when examining the sheaves is the condition of the grooves. To check the size, contour, and amount of wear, a groove gage is used. The gage should contact the groove for about 150 degrees of arc.

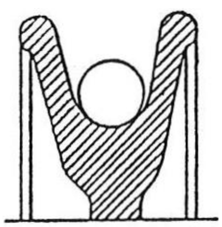
These sheave-groove cross- represent three wire rope seating conditions:



A. A new rope in a new groove



B. A new rope in a worn groove
(Too tight)



C. A worn rope in a worn groove
(Too loose)

Experience has clearly demonstrated that the service life of the wire rope will be materially increased by strict adherence to these standards.

CABLE

The cable and cable end swivel eye should be inspected at the beginning of each shift for any kinks, frayed or broken wires and for any damage to the swivel eye. If any damage is found with the cable or swivel eye it should be changed immediately.

Replacement cable: 7/8" diameter 6 X 37 right lay extra improved plow steel with steel core and 4" swaged button X 71' in length. (GALFAB # PP-948)

Replacement cable end swivel eye: (GALFAB # PP-341)

CHANGING THE CABLE AND CABLE END SWIVEL EYE: (See Page 10 section 3)

1. Retract the winch cylinders completely, turn off the power take off, make sure the truck brakes are set, and turn off the truck.

2. Remove the cable anchor pin, and take the cable anchor (wedge and socket) loose from the hoist.

3. Remove the cable clamp from the wedge and socket and take the wedge out of the socket.

4. Pull the cable out of the hoist. Note: it may be necessary to cut the cable in order to remove it.

5. Make sure all 5 sheaves rotate freely and are not loose.

6. Thread the cable end swivel eye the full length of the cable.

7. Thread the open end of the cable over the top of and around the front upright sheave. Pull the cable back to the cable guide and thread into the cable holder.

8. Thread the cable between the sheave groove and the winch rail closest to the center of the hoist, on the driver's side. Pull the cable past the rear of the hoist until the swivel eye and cable sedge are at the front upright sheave.

9. Thread the open end of the cable back up inside the winch rail on the driver's side edge of the hoist, and between the sheave groove and winch rail.

10. Pull the cable to the front of the hoist on the driver's side. Thread the cable around the front 2 sheaves.

11. Pull the cable down the passenger's side of the hoist and thread the cable between the sheave block groove and the winch rail on the passenger's side of the hoist.

12. Pull the cable past the end of the winch rail until the driver side cable loop is past the end of the winch rail.

13. Run the cable back up to the sheave block and thread thru the other side of the sheave.

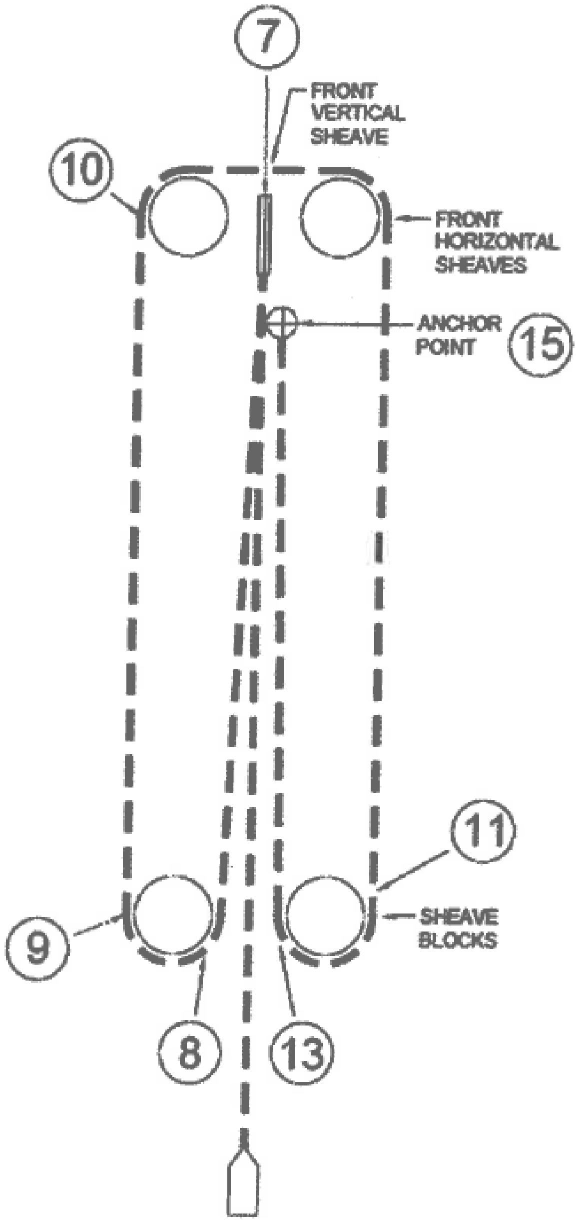
14. Pull the cable to the front of the hoist.

15. Assemble the cable to the wedge socket (Page 11 section 3). If the cable is 71' in length leave approximately 24" of cable tail, this will be cut back as instructed on page 11 of section 3. This should allow the container to pull completely into the stops and leave a few inches of winch cylinder stroke left.

16. Fasten the wedge socket end back into the hoist front with the cable anchor pin. Replace the cotter key.

    WARNING: The cable needs to be set (stretched and cable end tightened). The first use should be done carefully to make sure the wedge and socket are set and will hold properly.
    NOTE: New cables will stretch several inches after the first use. This may prevent the container from pulling completely into the stops and locks. If the cable needs to be reset follow steps 1, 2, 3, 15 and 16.

CABLE INSTALATION



CABLE REPLACEMENT

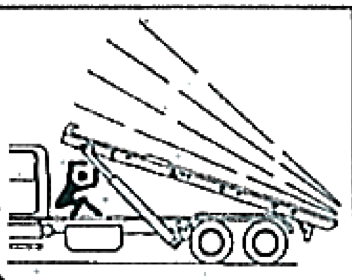
NOTE: Replacement cable must be 7/8" diameter 6 x 37 Extra Improved Plow Steel with steel core (6 x 37 EXIWRC) with a 4.00" swaged button x __ feet in length.

1. Remove the cable clamps and discard the old cable.

2. Inspect all the sheaves (see *INSPECTION OF SHEAVES*).

3. Install cable end onto cable. Thread cable through sheaves and guides, Etc. Loop cable through cable anchor and install clamps following the diagram below. Torque all bolts evenly to 150 Ft. Lbs. Cut off excess cable.

⚠ WARNING

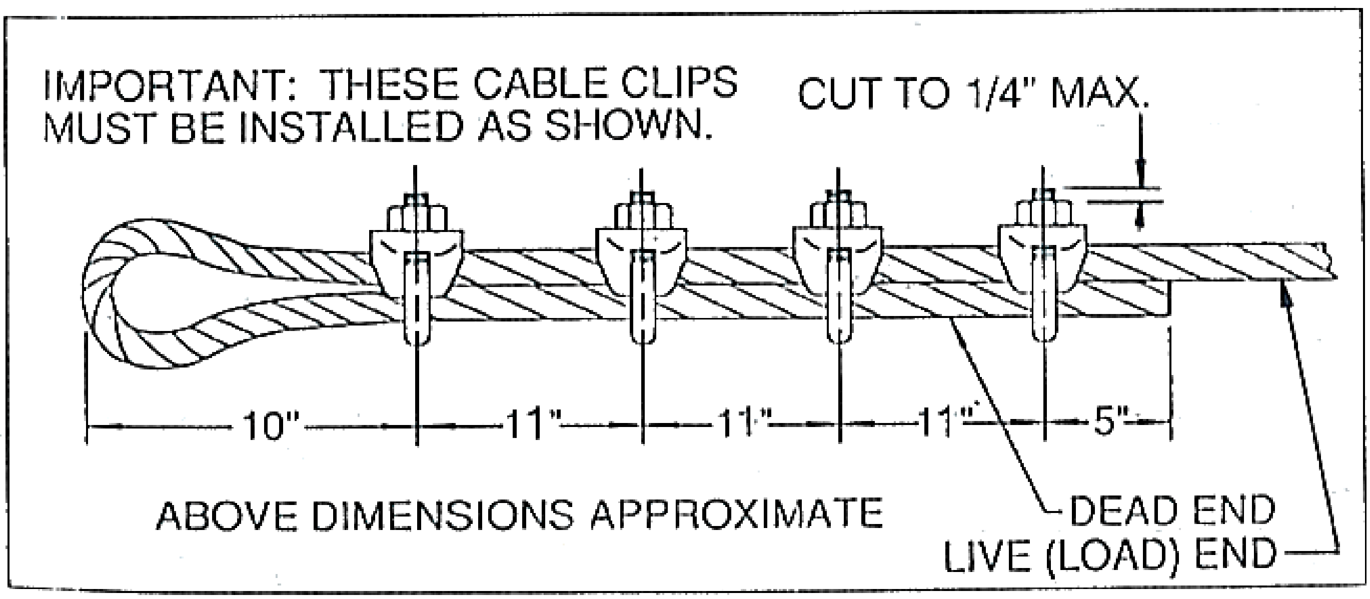


BEFORE WORKING AROUND A RAISED HOIST, THE HOIST MUST BE SUPPORTED BY THE HOIST PROP.
(SEE PROP OPERATING INSTRUCTIONS)
FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

IF THE HOIST PROPS CANNOT BE USED, CONSULT THE MAINTENANCE SECTION OF THE OPERATION MANUAL FOR THE PROPER PRECAUTIONS.

HOIST PROP OPERATING INSTRUCTIONS

1. Raise hoist and stand both props in upright position.
2. Props must be securely locked in upright position.
3. Lower hoist until stool rests on top of props.
4. CAUTION: Do not power hoist down on props.
5. To lower prop – raise hoist, lift props and lower them.
6. CAUTION: Props not in perfect working order must be repaired before using.
7. Be alert and think safe.



LUBRICATING INFORMATION FOR ROLL-OFF HOISTS

To grease the s ide roller bearings (brass bushings), cable sheave bearings (brass bushings), rear hinge bearings (different steels), and cylinder ends (different steels), a good grade of heavy-duty high temperature, high pressure grease should be used.

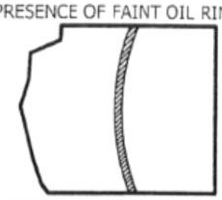
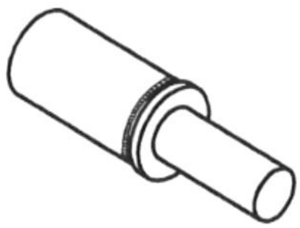
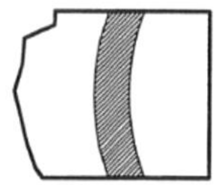
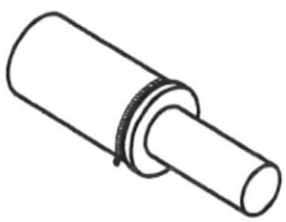
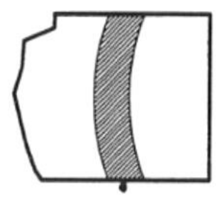
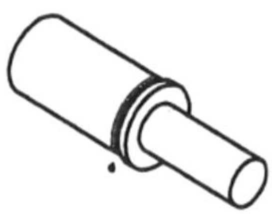
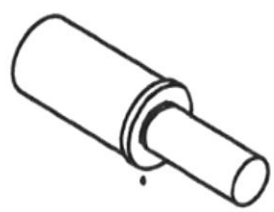
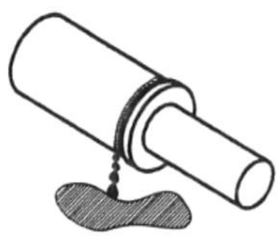
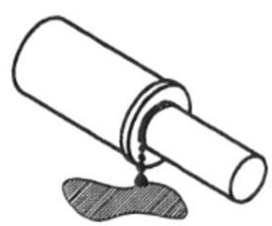
The side rollers, rear hinges, & cylinders should be greased at a minimum of every 6 days of use (more often in heavy or 24-hour-per-day usage). **Grease should not be cleaned away from the sides of the bearings**, as it serves as a dirt barrier and a sea l to keep grease in. The amount of grease used should be seen as it pushes through the old grease. The side rollers should be rotated turn & given more grease.

Caution! Always clean the dirt and old grease from the grease fittings before attaching the grease gun.

The cable sheaves should be greased until the grease is forced out to the outside of the sheaves and falls onto the cable. The grease that falls onto the cable will in time, cove r the cable & will lubricate it for longer life. When the cable sheaves are new it will take 3 or 4 good greasings to get enough grease to start lubricating the cable. After that, a small greasing should be done when the balance of the hoist is greased.

Again, do not clean the old excess grease from the greasable parts as it is needed to retain the new grease & keep the dirt out.
A good grade of grease such as: Mobil MLGI grade 2, ISO 320, M04 C.M.P. Premium Construction & Mining, or A LGI No.2 with ISO 320 base oil and 5% moly, or comparable, is recommended.

Note: When replacing a side roller, rear hinge, cable sheave, or cylinder, always grease before using with a load. The procedure we recommend and use in production for cables heaves is: grease 4 or 5 pumps, turn 1/3, again 4 or 5 pumps, turn 1/3, again 4 or 5 pumps, then turn 1complete rotation. For side rollers- 4 pumps, rotate turn & grease until grease is shown on both sides of roller, then rotate 1 complete turn. For rea r hinges or cylinders, grease until grease is seen coming out of s hafts, then raise hoist & again grease until grease can be seen a round s haft ,then lower hoist and grease again until grease can be seen around shaft.

CLASSIFICATION OF FLUID LEAKS			
LEAKAGE CLASS	DESCRIPTION	STATIC	DYNAMIC
0	NO EVIDENCE OF FLUID		
1	NON-RECURRING PRESENCE OF FLUID		PRESENCE OF FAINT OIL RING 
2	INTERMITTENT FLUID WHICH DOES NOT FORM A BEAD	PRESENCE OF MOISTURE WITHOUT BEAD FORMATION 	PRESENCE OF OIL FILM WITHOUT BEAD FORMATION 
3	INTERMITTENT FLUID WHICH FORMS A NON-FALLING BEAD	PRESENCE OF MOISTURE WITH BEAD FORMATION 	PRESENCE OF OIL FILM WITH BEAD FORMATION 
4	INTERMITTENT FLUID WHICH FORMS A FALLING BEAD	FLUID DRIPS AT A REGULAR INTERVAL 	FLUID DRIPS AT A REGULAR INTERVAL 
5	INTERMITTENT FLUID WHICH FORMS A QUANTIFIABLE STREAM	FLUID FORMS A CONTINUOUS STREAM 	FLUID FORMS A CONTINUOUS STREAM 

Telescopic Lift Cylinder Bleeding Procedure

1. Raise the hoist approximately 8". Loosen the bleed screws at the top of the lift cylinders, on each side of the hoist. Air mixed with oil may come out around the bleed screws, after a few seconds this should change to only oil coming out. If a lot of air is in the lift - cylinders, the hoist frame may settle back to the top of the truck frame. If it does, then tighten the screws, raise the hoist 8", and bleed again until only oil comes out.

2. Retract lift cylinder and allow oil to dump over the relief setting for 3-5 seconds.

3. Raise hoist until l) ft. cylinder is approximately 8" into the second stage.

4. Lower hoist with power (oil going to retract side of lift cylinders) until hoist is approximately 8" above ·truck frame.

5. Loosen the bleed screws at the top of the lift cylinders, on each side of the hoist. Air mixed with oil may come out around the bleed screws, after a few seconds this should change to only oil coming out. If a lot of air is in the lift cylinders, the hoist frame may settle back to the top - of the truck frame. If it does, then tighten the screws, raise the hoist 8", and bleed again until only oil comes out.

6. If lift cylinders still seem spongy then repeat steps 1 - 5 as needed. Note: Hydraulic oil may trap air droplets in it. Allow enough time for air to separate out of oil between operating.

SECTION 4

ASSEMBLY

TRUCK PREPARATION AND HOIST MOUNTING PROCEDURE

If the truck chassis meets the minimum recommended requirements, the following procedure should guide the installer to properly mount the hoist. If not, the discrepancies must be corrected.

> **!CAUTION!** Some trucks will require "customized" installation techniques to be utilized. A qualified individual must analyze all stress forces acting upon any customized construction so as to avoid the possibility of a failure or dangerous situation.

> **NOTE:** Any irremovable obstacle such as a muffler, air tank, battery box, etc., must be considered as cab. There must not be any protrusions above the truck chassis frame.

Step 1: Carefully check the "Chassis Requirements" and "Hoist Recommended Truck Specifications" to assure proper clearance and strength before mounting hoist. (See Section 1) Inspect for any obstacles such as air tanks, air dryers, fuel tanks, fuel filters or brackets which may have to be relocated to provide clearance for lift cylinders, controls, tool box, oil tank, lower lift brackets, and other options such as 3rd lift axle. The lift cylinders require a minimum 2 ½" clearance around their path of operation. The oil tank mounting brackets require 9" between the back of the valve mounting bracket and the front edge of the oil tank mounting brackets. The valve-mounting bracket should be placed as close to the cab as possible when using inside air controls.

Step 2: After it has been determined that the hoist will fit the truck frame, and there are no mounting obstructions, cut the rear of the truck off approximately 25" behind center of rear most axle. (See Fig. "RC") Then grind the top edge of truck frame corners to allow room for the sub frame apron welds.

Step 3: Mount valve-mounting bracket using (4) ½" x 2" Grade 5 bolts. (See drawing below) Use existing holes in frame of truck, if available. Mount bracket as close to the cab of the truck as possible for air inside controls.
Step 4: Mount oil tank and tool box mounting brackets to the truck frame with (6) ½" x 2" bolts. (See Fig "OT")

> **NOTE:** Use existing frame holes whenever possible for mounting brackets. Allow9" between valve mounting bracket and front edge of oil tank mounting bracket.

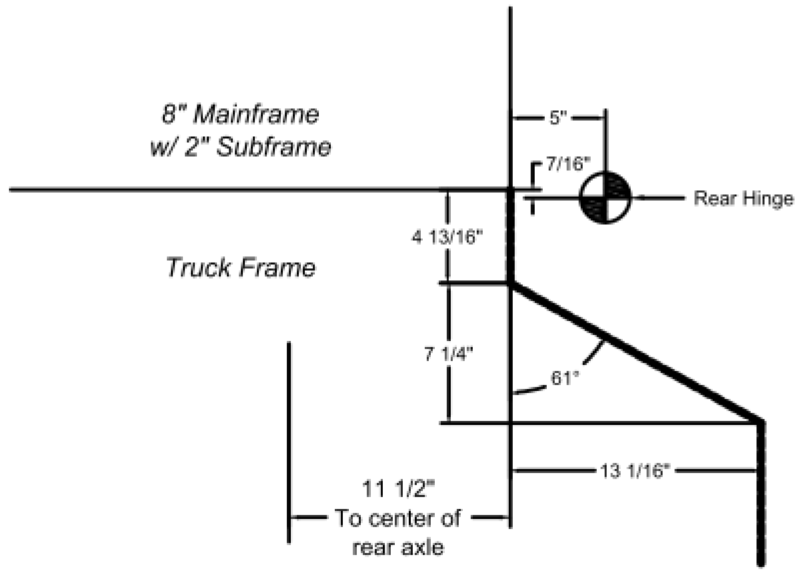

8" Mainframe
w/ 2" Subframe
5"
7/16"
Rear Hinge
4 13/16"
Truck Frame
7 1/4"
61°
13 1/16"
11 1/2"
To center of
rear axle

FIG RC

*Includes 3rd Axle

NOTE: Other hoist mounting problems may exist; a complete chassis inspection should be performed.

Drill (6) ½" holes

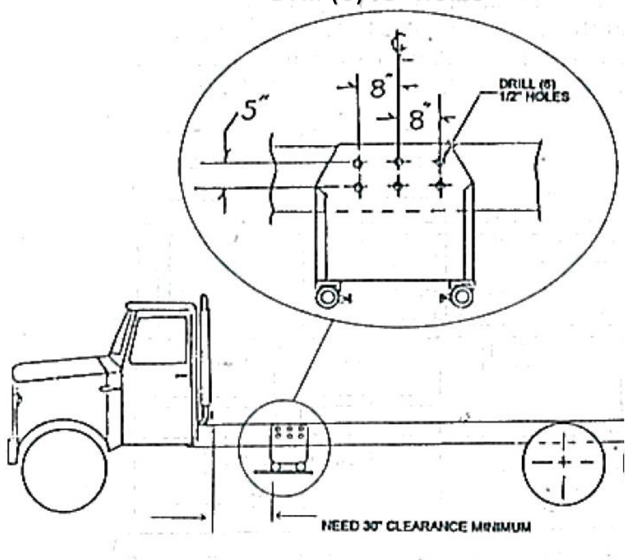


FIG OT

Step 5: Mount center fender mounting brackets using 5/8" bolts. If fenders are not to be installed disregard this step. (See drawings below)

Step 6: Set hoist on truck frame making sure there is sufficient cab clearance and no obstructions. Center hoist on truck frame and make sure sub frame apron is all the way forward against cut-off point.

Step 7: After checking all clearances such as lower lift bracket location, oil tank, and tool box clearance, etc., locate front sub frame clamps as far forward as possible. (See drawing below) Weld clamp to sub frame and bolt clamp on truck frame. Make sure angle is as tight to truck frame as possible to keep the sub frame from working back and forth.

Step 8: Weld the hoist sub frame apron to the ends of the truck frame, outside and inside. A continuous up-pass weld, 3/8" fillet, is required. (See Fig. "WP")

> **NOTE:** It is important to tack-weld first, and then recheck for squareness before welding solid. This will reduce the possibility of alignment mistakes and prevent the hoist frame from shifting as it is welded.

Step 9: Measure the retracted eye to eye of the lift cylinders. **Be sure the cylinder is completely closed**. Slide the lower lift brackets into the space under the hoist sub frame. (See drawing below) Slide the lower lift shaft through the brackets. Slide lower lift brackets forward or rearward to obtain the proper location. The proper setting is the center eye to eye dimension of the retracted lift cylinder plus 1/8". (See drawing below) EXAMPLE: If your lift cylinder is 58 ½" eye to eye, then the lower lift bracket to upper lift pin measurement will be 58 9/16" center to center. When the lift brackets are located in the proper position, clamp them tightly to the truck frame. Drill (10) 5/8" diameter holes through the lower lift brackets and the truck frame.

> **NOTE:** Occasionally there are existing holes in the truck frame that may be utilized. Use 5/8" bolts and nuts to fasten lift brackets to truck frame. Before bolting lower lift bracket into place, install the lower lift bracket shaft. The standard straight shaft may be installed by sliding straight through. The spacer pipe should be installed at this time. There must be a minimum of 5" clearance between the spacer pipe and truck drive shaft. If 5" clearance is not obtainable with the standard shaft, a drop center shaft is available from the factory.

If the drop center shaft is to be used, remove one lower lift bracket, install drop center shaft, replace lower lift bracket and bolt to side of truck frame (See IS 183).

Step 10: Weld lower cylinder shaft spacer pipe securely and weld hoist sub frame to lower lift bracket (See IS 182).

NOTE: Occasionally, due to variations in truck chassis, it may become necessary to use alternate hardware parts such as bolts, pipes and fittings, hoses, etc. If such conditions arise, good mechanical judgment must be exercised and alternate parts must be purchased by the installer.
NOTE: When installing the drop shaft, after shaft is positioned, weld anti-rotation blocks to lower lift bracket. **DO NOT** weld shaft to lower lift bracket or anti-rotation blocks. (See drawing below)

Step 11: Slide oil tank mounting pipes through the tank mounting brackets. (See drawing below) Center the pipes so that the same amount is protruding from each side of the truck. Tighten the ½" bolts to hold the pipes in place.

Step 12: Install PTO by following Manufacturer's Instructions.

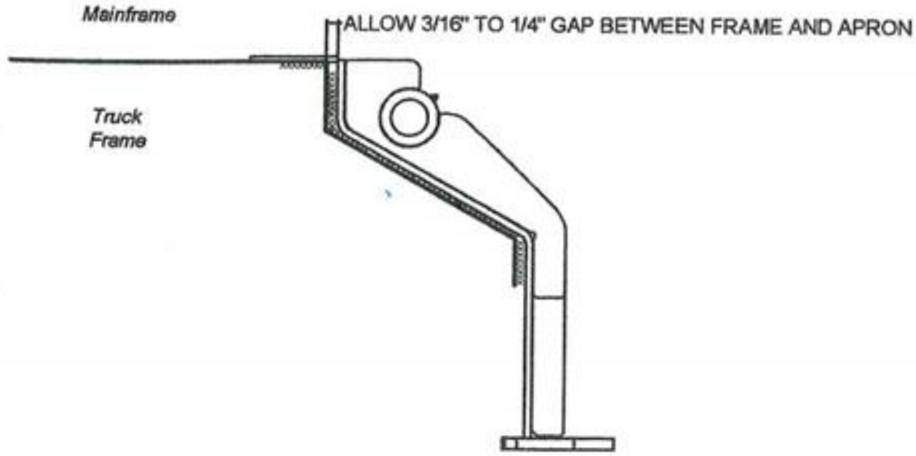
!CAUTION! The Power Take-Off selection should be done with care. For diesel engines, the PTO should run approximately 100% of engine RPM. The minimum torque required is 110 Ft. Lbs.
The standard **GalFab, Inc.** pump is direct mount SAE B Flange, 13 tooth spline 7/8" shaft and will bolt directly to the PTO. Care should be taken to align the spline shaft on the pump into the PTO. Place grease in the PTO spline to lube the pump shaft PTO connection. Check to be sure the flange is seated properly into the PTO and use (4) ½" x 1 ½" bolts and lock nuts to fasten pump to PTO. A bracket should be fabricated to secure pump to the transmission. When using the pump body bolts to anchor the pump and bracket to the transmission; re-torque the body bolts to 200 Ft. Lbs. Install hose barb into the pump suction line port on the rear of the pump. The 1 ½" port should be the suction line.

Use a standard universal joint on the PTO end and a slip joint on the pump end. Cut the PTO shaft to length and cut a keyway at the proper PTO shaft location.

The following steps of assembly instructions deal with the installation of hydraulic components.

NOTE: Be sure all hydraulic parts are clean; hoses, tank, etc., before and during installation. Keep pipe and hose ends covered. Check before installing to assure that no foreign material is inside.

Step 13: Install inside controls. (See Sec 5) Mount valve to vale mounting bracket. Route hoses to the sub frame.



FRAME /REAR APRON
WELD PROCEDURES

OUTBOARD

1.) FILL IN GAP WITH STRINGER
2.) 3/4" UP PASS ENTIRE LENGTH

INBOARD

1.) 3/16 " TRIPLE UP PASS

NOTE: OUTBOARD ANGLED SIDE GUSSET NOT SHOWN BUT MUST BE FULLY WELDED

FIG WP

Step 14: Install the lift cylinders. Use the spacer washers supplied to shim the cylinders to insure the center to center of the rod end is the same as the center to center of the base end on the lift cylinders. Plumb lift cylinders to the hydraulic lines in the sub frame being sure to attach the extend line to the extend port of each lift cylinder and the retract line to the retract port of each lift cylinder.

Step 15: Install oil tank and tighten mounting bolts to the oil tank mounting pipes. (See Sec 5) Plumb suction line to pump and to oil tank suction port. Plumb valve return port to oil tank return filter; also plumb the pressure line from the pump to the valve. When using Tool box option, install tool box-mounting bracket and tighten the mounting bolts to oil tank mounting pipes. Set tool box on bracket and weld in place. The tool box should be centered as nearly as possible between the oil tank mounting pipes.

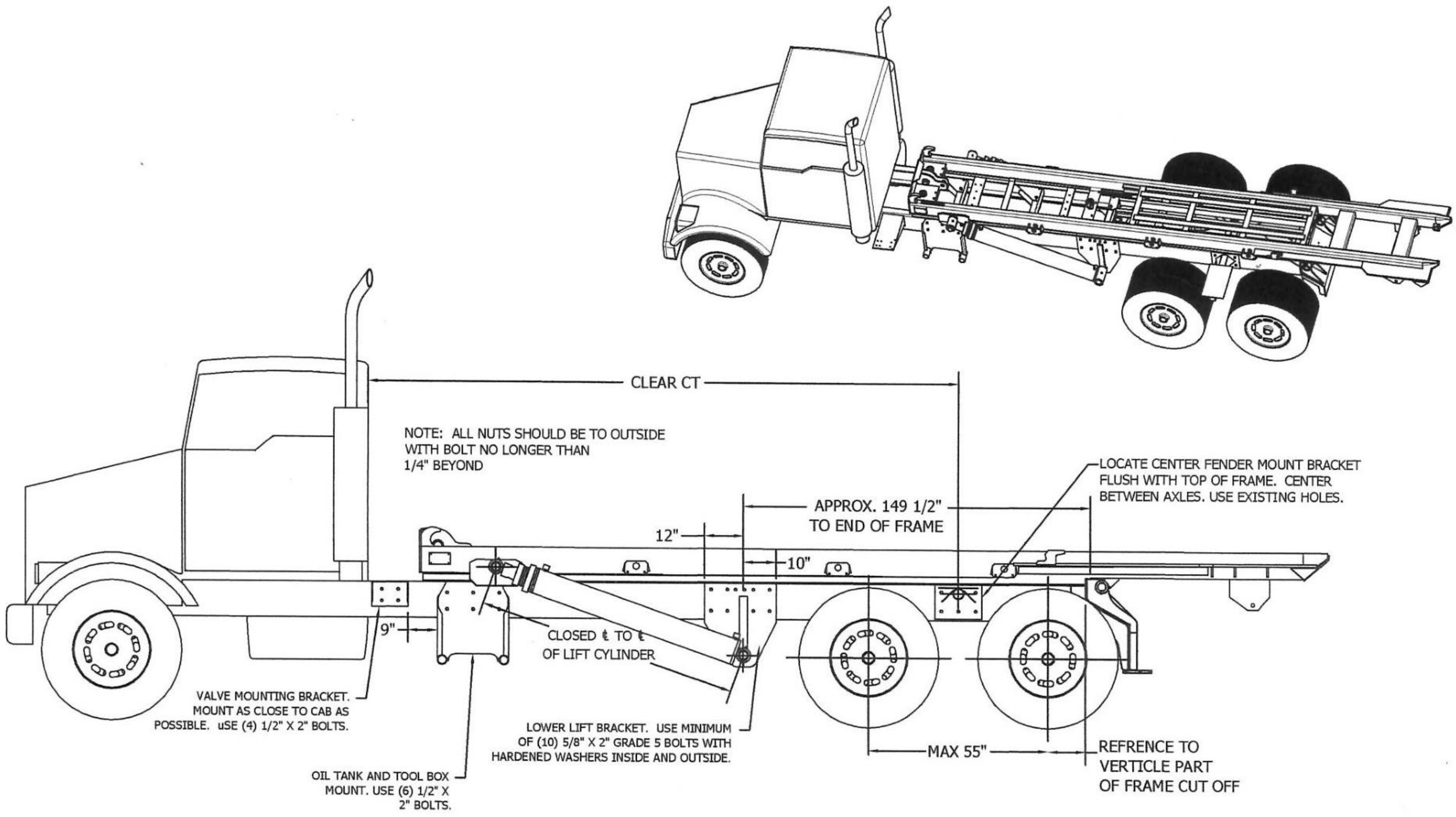
Step 16: Mount the split bumper 16 ½" from the bottom of the main frame tube to the top of bumper. Weld the bumper solid to the apron. (See drawing below) Make sure the left side and the right side are in line with each other and level. Install auto fold up ICC Bumper if supplied with hoist. (See Sec 5)

Step 17: Mount fenders. (See drawing below, Sec 5) Wire lights and install alarms.

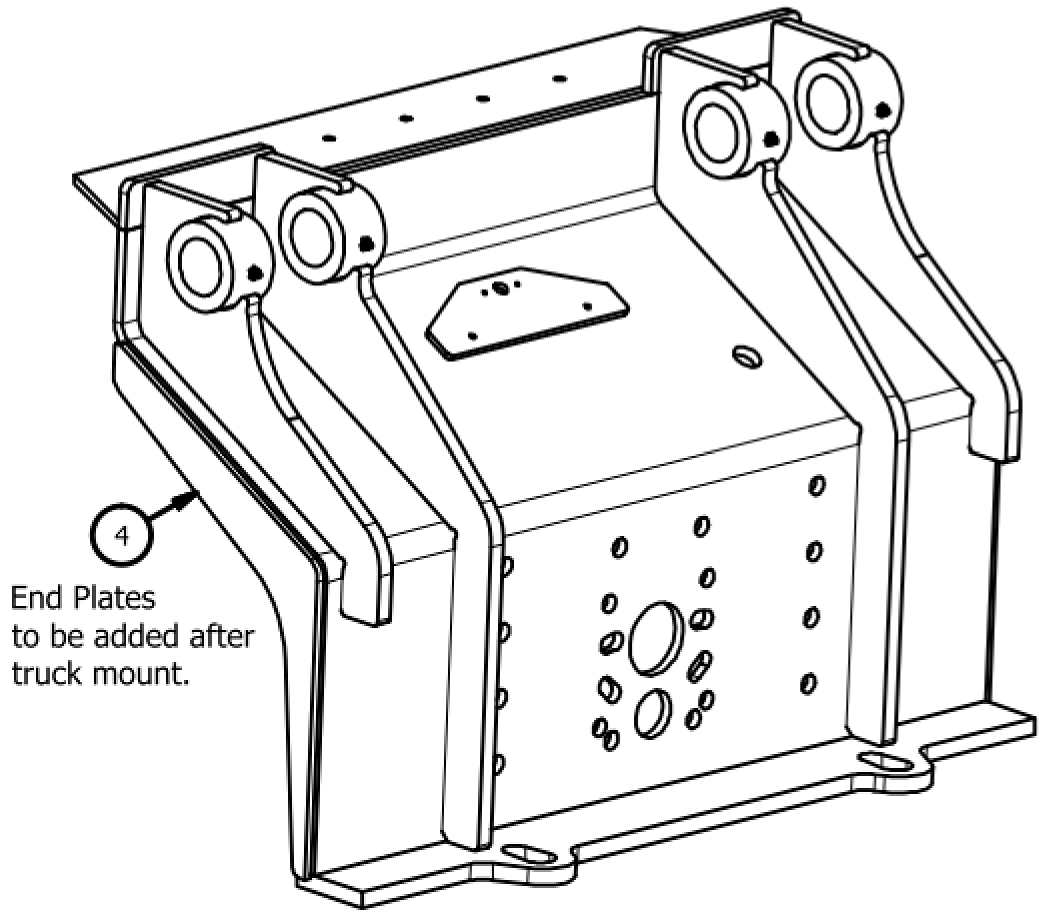
Step 18: Fill oil tank with Hydrex MV 36 or equivalent.

> **!CAUTION!** Make sure tank gate valve is open before starting the hydraulic pump. If not, the hydraulic pump will be damaged. Start the truck and put PTO in gear. Check for leaks. **<u>TURN ENGINE OFF IMMEDIATELY IF ANYTHING OUT OF THE ORDINARY OCCURS</u>**. Run unit up and down, winch in and out, and tail in and out (if unit has an extending tail section). Check for leaks. Always check oil level in the oil reservoir. If low oil occurs while checking unit, stop the engine and add the required amount of oil.
> **NOTE:** Do not overfill reservoir.

Step 19: Install hoist prop. (See Sec 5) Paint and place decals. (See Sec 5)

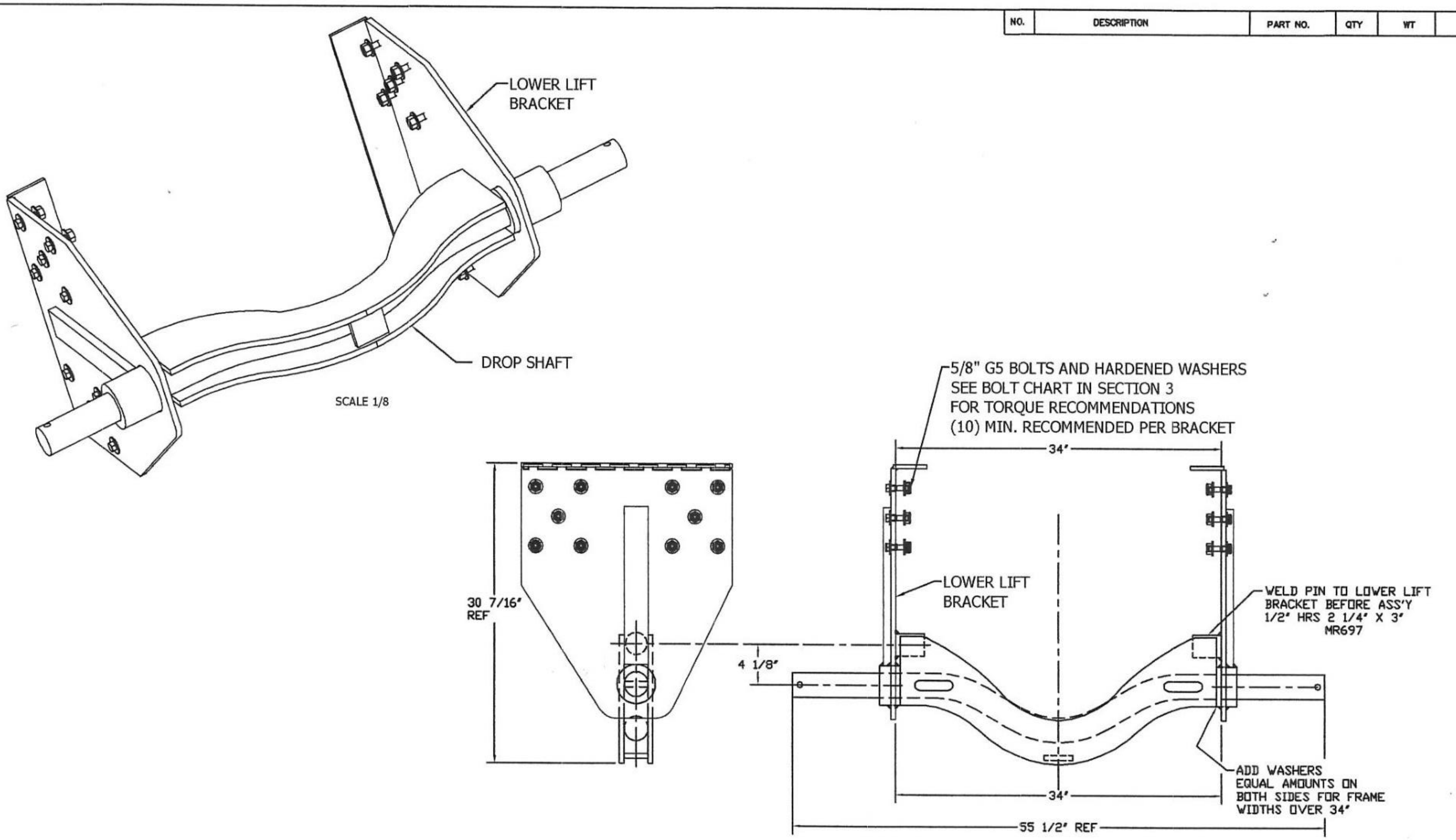


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GALFAB INCORPORATED WINAMAC, IN	SCALE1:30	DRAWING NAME TRUCK FRAME MOUNTING - SIDE VIEW	DIRECTORY
	BY RS		DWG NO. IS177
	DATE 8/7/2007		



4
End Plates
to be added after
truck mount.

NO.	DESCRIPTION	PART NO.	QTY	WT



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DESCRIPTION	ECN DATE	NO.	BY
REDESIGNED	9/10/10	R2	JJS
REDRAWN IN AUTOCAD, ADDED SOME NOTES	7/13/10	R1	JJS

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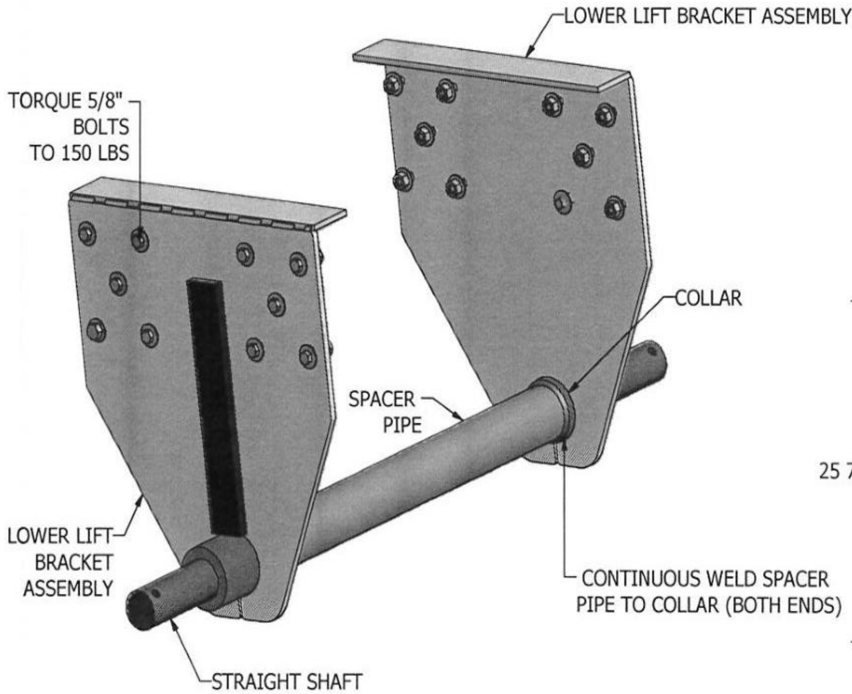
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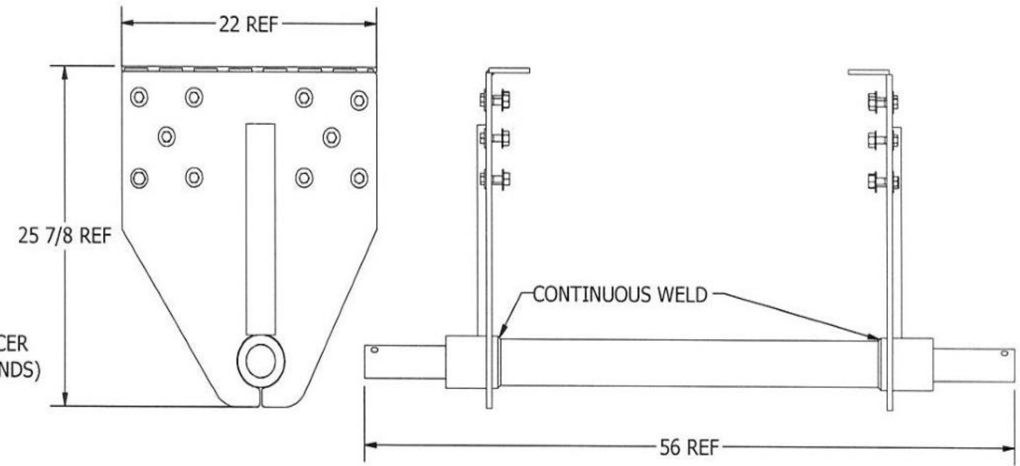
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DATE 8/30/07

INSTALLATION INSTRUCTIONS
LOWER LIFT BRACKETS
WITH DROP SHAFT

DIRECTORY NO. IS
DRAWING NO. IS183

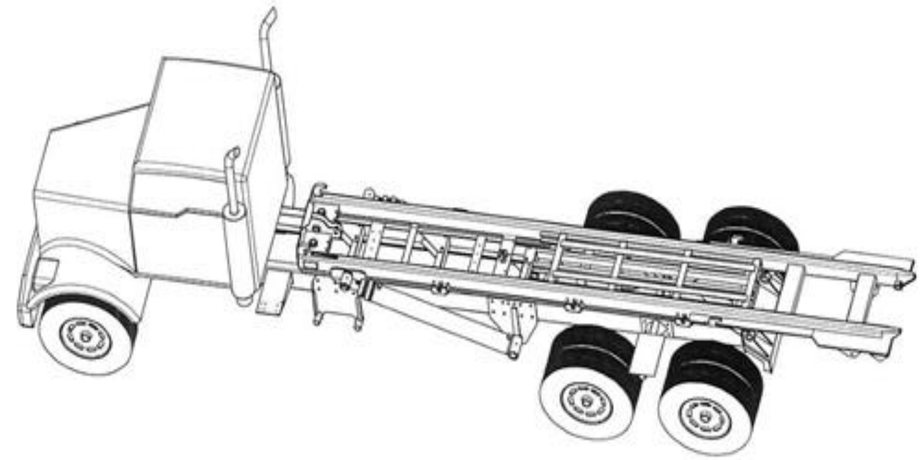


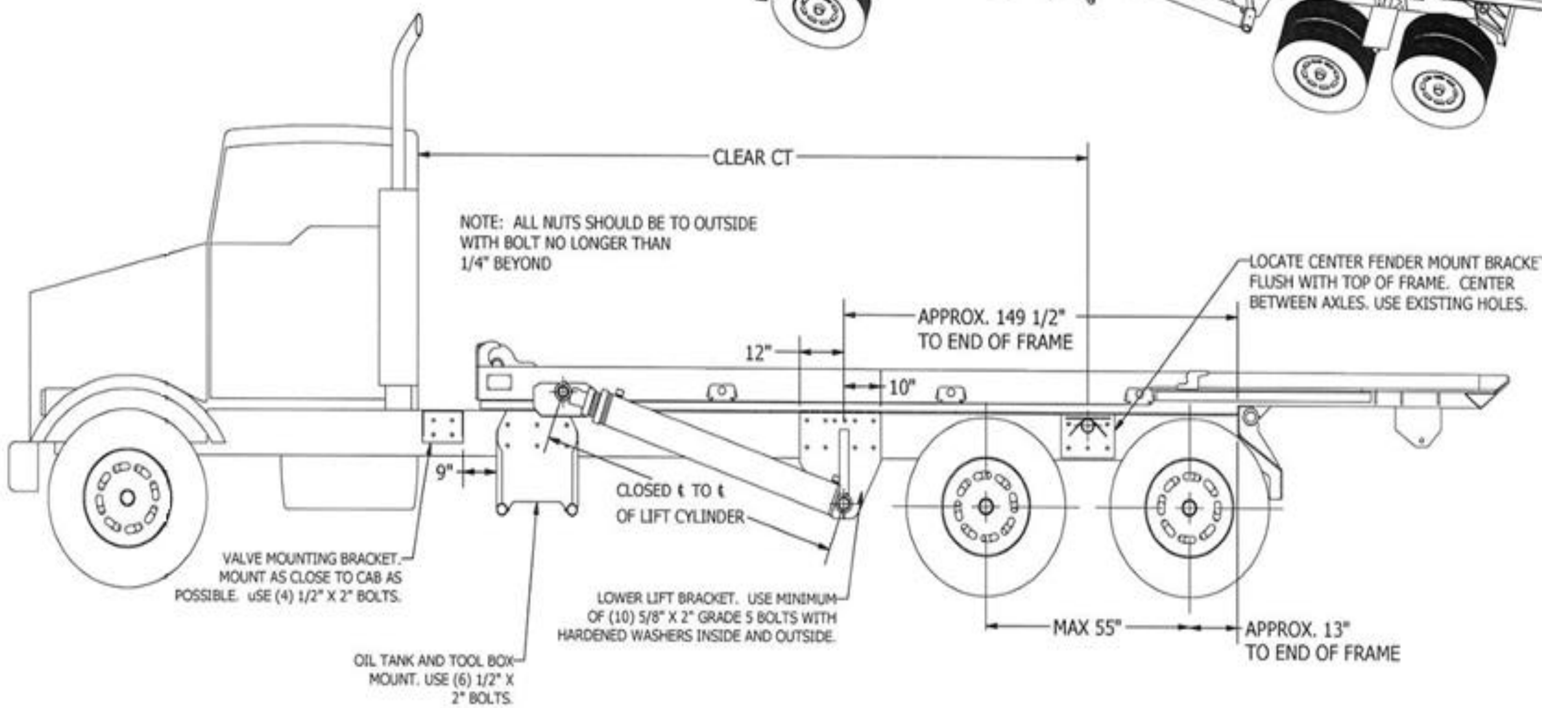
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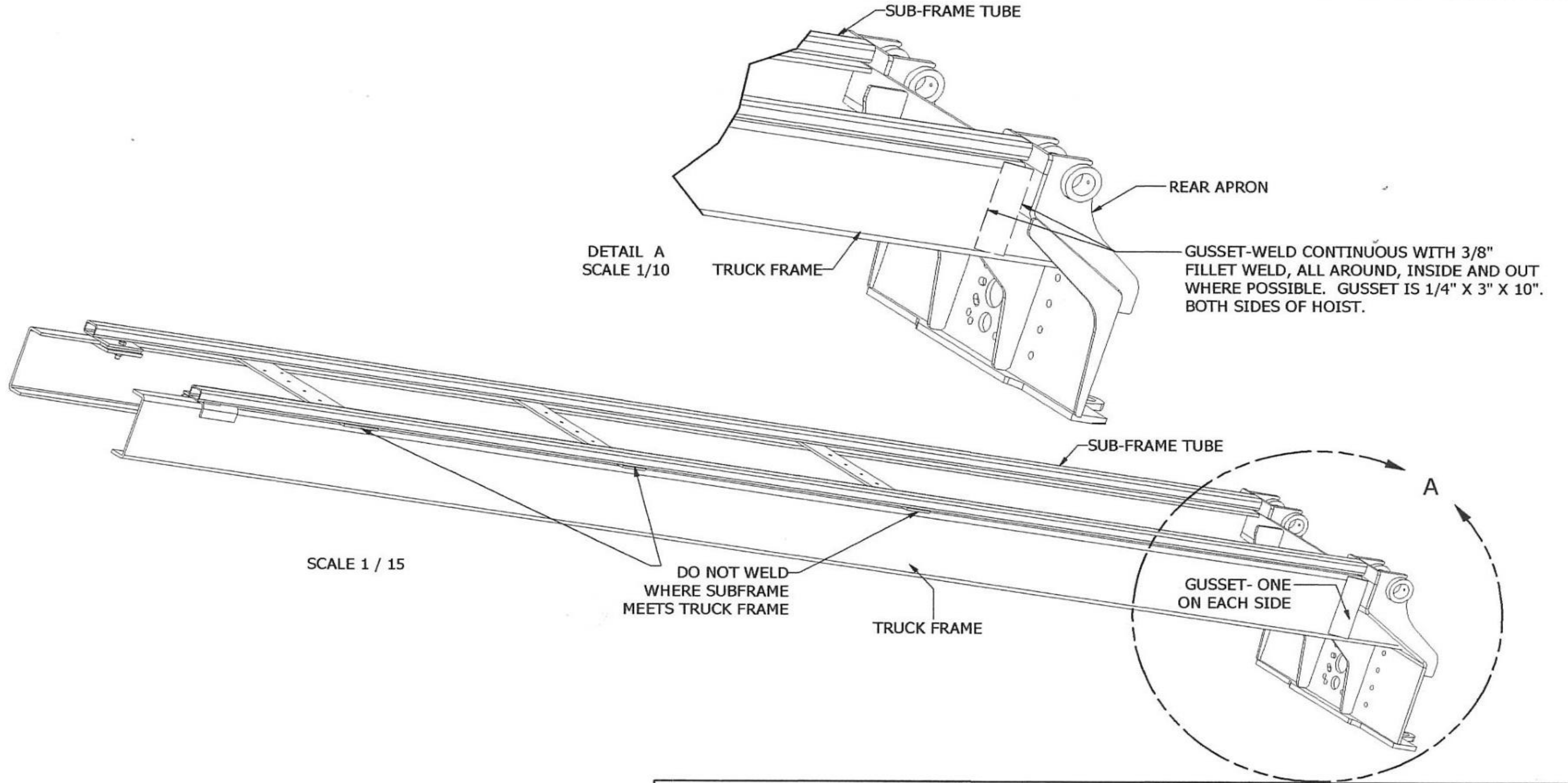
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GALFAB INCORPORATED WINAMAC, IN	SCALE AS SHOWN	DRAWING NAME INSTALL LOWER LIFT BRACKET AND STRAIGHT SHAFT	DIRECTORY IS
	BY RS		DWG NO. IS182
	DATE 8/27/2007		



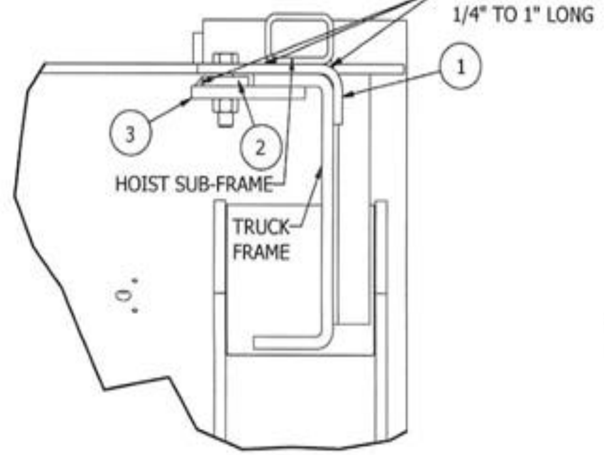


SHEET SIZE B	THIS DRAWING IS THE EXCLUSIVE PROPERTY OF GALFAB, INC. AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO GALFAB, INC. DO NOT SCALE THIS DRAWING		WGHT. 0 lbmass
GALFAB INCORPORATED WINAMAC, IN	SCALE 1:30	DRAWING NAME TRUCK FRAME MOUNTING - SIDE VIEW	DIRECTORY
	BY RS		DWG NO. IS177
	DATE 8/7/2007		

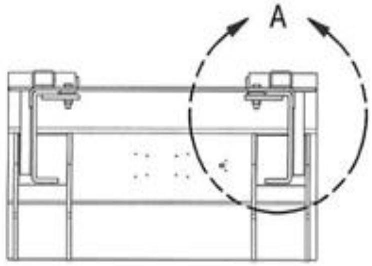


SHEET SIZE B	THIS DRAWING IS THE EXCLUSIVE PROPERTY OF GALFAB, INC. AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO GALFAB, INC. DO NOT SCALE THIS DRAWING		WGHT. 689.08 lbmass
GALFAB INCORPORATED WINAMAC, IN	SCALE BY RS DATE 8/15/2007	DRAWING NAME INSTALLING APRON TO FRAME GUSSET	DIRECTORY IS DWG NO. IS181

NOTE: ITEM #2 1/32" TO 1/16" HEAVIER THAN FRAME THICKNESS.



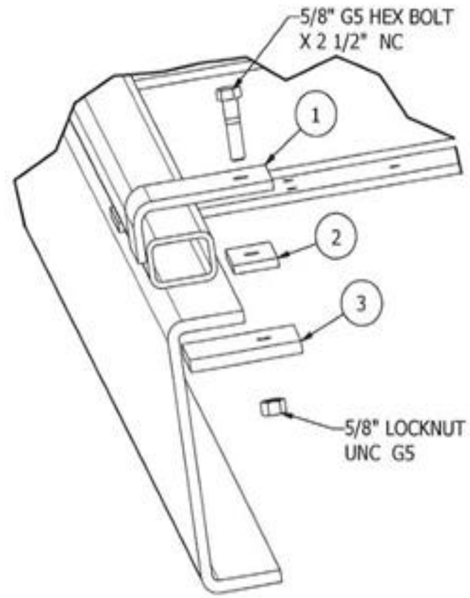
DETAIL A
SCALE 1/5



SCALE 1 / 15

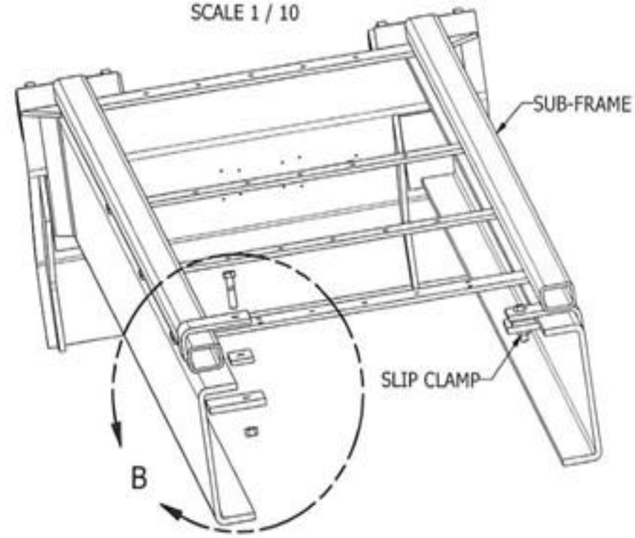
FRONT SUBFRAME SLIP CLAMP

1 MS282 UPPER CLAMP
2 MS284 SHIMS
3 MS283 LOWER CLAMP



DETAIL B
SCALE 1 / 5

SCALE 1 / 10



SHEET SIZE B	THIS DRAWING IS THE EXCLUSIVE PROPERTY OF GALFAB, INC. AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO GALFAB, INC. DO NOT SCALE THIS DRAWING		WGHT. 689.08 lbmass
GALFAB INCORPORATED WINAMAC, IN	SCALE	DRAWING NAME INSTALLING FRONT SUBFRAME SLIPCLAMP	DIRECTORY IS
	BY RS		DWG NO. IS180
	DATE 8/15/2007		

MOUNTING INSTRUCTIONS FOR POLY FENDERS

STEP 1: DRILL AND BOLT #9 TO TRUCK FRAME FLUSH WITH THE TOP OF FRAME AND CENTERED BETWEEN THE AXLES. USE 5/8" NC BOLT WITH LOCK WASHERS GRADE 5 OR BETTER. NOTE: **MOUNTING BRACKET PLATES #9 MAY NEED TO BE TRIMMED ON SOME TRUCKS.**

STEP 2: SET FENDER #1 ON TIRES OF TRUCK. (FOR TRI-AXLES, PUT FENDER SECTION #2 ON CENTER AXLE TIRES. #2 NOT SHOWN BELOW.

STEP 3: DETERMINE HOW MUCH AXLE TRAVEL IS REQUIRED (USUALLY 4" TO 5"). PLACE A SPACER (BLOCK OF WOOD), ETC. ON TIRE FOR THE DESIRED HEIGHT, WITH FENDER RESTING ON THE SPACER. LEVEL FENDER SECTION AND HOLD CENTER MOUNTING BRACKET #5 IN PLACE AND MARK ON #9 MOUNTING BRACKET PLATE ITS LOCATION. MARK #3 FRONT BRACKETS LOCATION. NOW LOCATE AND BOLT THE OTHER #9 PLATE IN PLACE ON THE FRAME USING #3 AND THE FENDER AS A REFERENCE AS SHOWN IN ILL.#2. MARK AND LOCATE #3 TO THE OTHER #9 PLATE.

STEP 4: REMOVE FENDERS AND WELD #5 AND #3 FENDER MOUNTING BRACKETS IN PLACE ON #9 MOUNTING BRACKET PLATES. NOTE: **DO NOT WELD DIRECTLY TO TRUCK FRAME.**

STEP 5: DRILL AND BOLT FENDER TO FRONT AND MIDDLE BRACKETS WITH 5/16" X 1" BOLTS, NUTS, AND WASHERS. USE #10 COVER PLATES AND OVER CENTER BRACKETS, SANDWICHING FENDER SECTIONS BETWEEN #10 AND #5. FENDER SECTIONS MAY NEED TO BE TRIMMED.

STEP #6: WELD #4 BRACKET TO BUMPER. DRILL AND BOLT REAR FENDER SECTION. NOTE: IF TRUCK DOES NOT HAVE A BUMPER, MODIFICATIONS TO MOUNT #4 BRACKET MAY BE NEEDED. NOTE: YOU MAY WISH TO ORDER EXTRA #3 BRACKETS TO MOUNT REAR OF FENDERS IN LIEW OF #4 BRACKETS.

NOTE: <u>DO NOT USE FENDERS AS A STEP!!!</u>

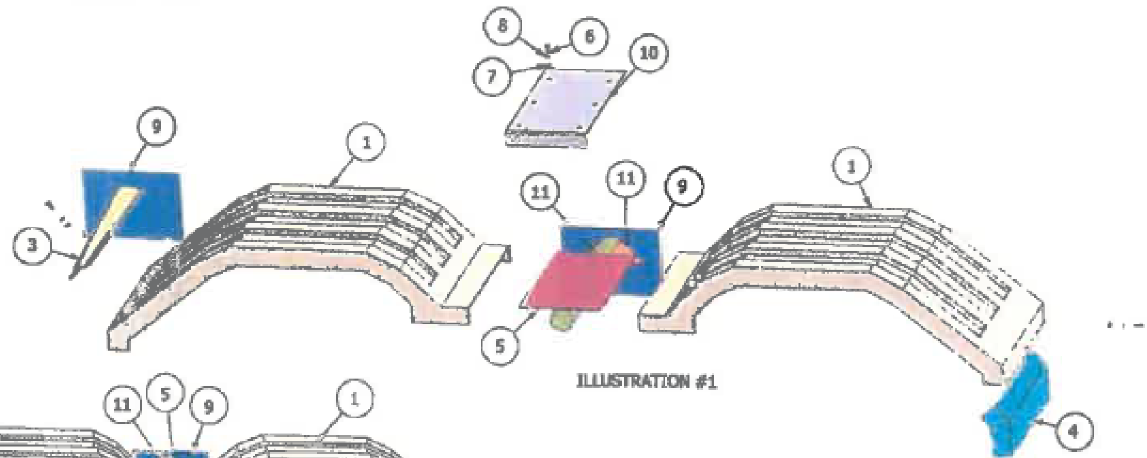


ILLUSTRATION #1

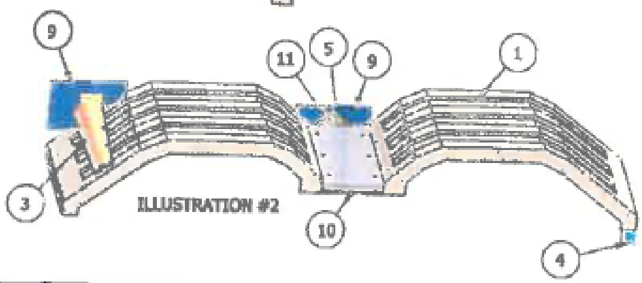


ILLUSTRATION #2

SHEET SIZE B	THIS DRAWING IS THE EXCLUSIVE PROPERTY OF GALFAB, INC. AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO GALFAB, INC. DO NOT SCALE THIS DRAWING		WGHT. 235 lbmass
GALFAB INCORPORATED WINAMAC, IN	SCALE 1:12	DRAWING NAME FENDER KIT- POLY TANDEM	DIRECTORY
	BY RS		
	DATE 8/8/2007		DWG NO. MA919 (IS178)

SECTION 5

PARTS LISTS

CAUTION

DO NOT EXCEED 1600 ENGINE RPM WHEN OPERATING POWER TAKE OFF!

PD-2 1-94

DANGER

PINCH POINT

PD-35

GALFAB

MANUFACTURED IN COMPLIANCE WITH APPLICABLE ANSI Z245.1 SAFETY STANDARDS.

WINAMAC, INDIANA 46996

JOB NO.	SERIAL NO.	DATE

MODEL NO.	RATED CAP.

PD 12

HOIST PROP OPERATING INSTRUCTIONS

1. Raise hoist and stand both props in upright position.
2. Props must be securely locked in upright position.
3. Lower hoist until steel rests on top of props.
4. CAUTION: Do not power hoist down on props.
5. To lower props--raise hoist, lift props and lower them.
6. CAUTION: Props not in perfect working order must be repaired before using.
7. Be alert and think safe.

PD-3 1-94

CAUTION

HOIST WARNING LIGHT. WHEN LIT, CHECK BEFORE MOVING.

PD-17 11/93

DANGER

DO NOT USE THIS HOIST TO RAISE REAR WHEELS OFF OF THE GROUND AS THIS COULD RESULT IN PERSONAL INJURY OR DAMAGE TO PROPERTY.

PD 28 8/93

CAUTION

NEVER ALLOW ANY PERSON TO WORK OR BE UNDER HOIST IN RAISED POSITION WITHOUT FIRST INSTALLING ADEQUATE SAFETY BLOCKS TO ELIMINATE ALL POSSIBILITIES OF THE HOIST ACCIDENTLY FALLING.

NEVER ALLOW ANY PERSON TO BE BETWEEN HOIST AND CONTAINER WITHOUT HOIST AND CONTAINER BEING SECURELY LOCKED IN A NON-MOVEMENT CONDITION.

PD-5 3-92

⚠ WARNING

DO NOT OPERATE OR SERVICE THIS EQUIPMENT UNTIL YOU HAVE BEEN PROPERLY TRAINED AND INSTRUCTED IN ITS USE. AND HAVE READ THE OPERATION AND SERVICE MANUAL.

PD-6 1-93

DANGER

WHEN OPERATING THIS UNIT, KEEP CONTAINER LONG SILL SECURELY ENGAGED AND PARALLEL ON HOIST MAIN FRAME.

PD-19 4-92

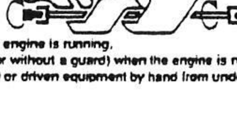
HOIST USAGE INSTRUCTIONS

1. Read and understand hoist manual before using the hoist and follow its instructions.
2. Observe and practice all safety and operating rules as established by your company and those included in the hoist manual.
3. Always use hoist within its rated capacity.
4. Be sure container is securely attached to hoist before moving.
5. Repairs to hoist and container must be made, when required, before using.
6. Use only with containers that have been properly designed to work with hoist.
7. Do not allow material to extend beyond the limits of container.
8. Keep container long sills engaged on hoist main frame rails and rollers.
9. Do not operate within ten feet of overhead power lines.
10. Be Careful - Be Alert - Use Good Judgement.

PD-7 11/93

WARNING

Rotating shafts can be dangerous. You can snag clothes, skin, hair, hands, etc. This can cause serious injury or death.



To avoid serious injury or death from a rotating shaft:

1. Do not go under the vehicle when the engine is running.
2. Do not work on a PTO or shaft (with or without a guard) when the engine is running.
3. Do not engage or disengage the PTO or driven equipment by hand from under the vehicle when the engine is running.

Always shut the engine off before working on or near the system

DO NOT PAINT OVER THIS LABEL!

IN ↑ AUX/TAIL ↓ OUT — PD-33A

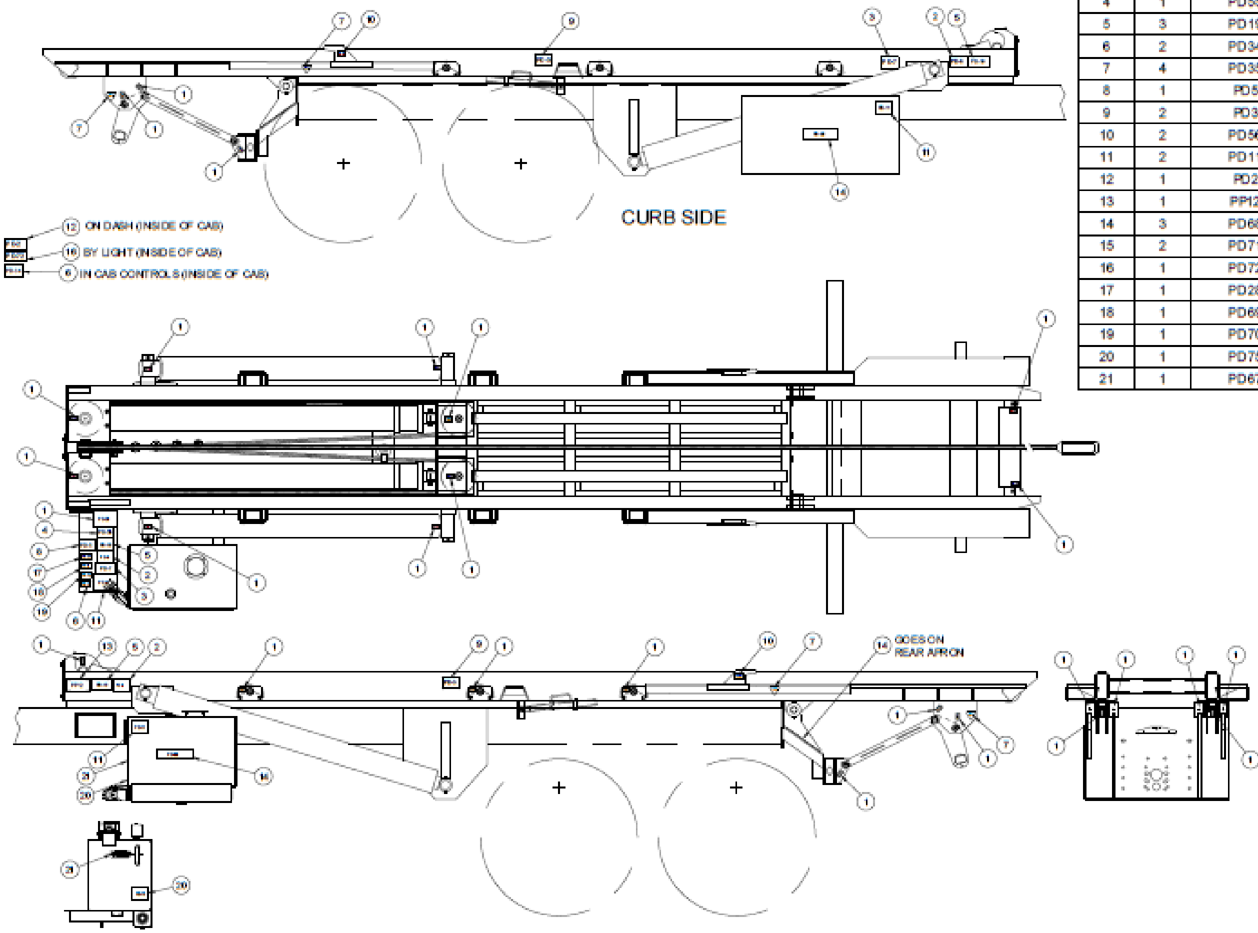
LOWER ↑ HOIST ↓ RAISE — PD-33A

OFF ↑ WINCH ↓ ON — PD-33A

LOWER ↑	OFF ↑	IN ↑
HOIST	WINCH	AUX/TAIL
RAISE ↓	ON ↓	OUT ↓

PD-34

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PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION	WGHT
1	24	PD17	DECAL, GREASE HERE	--
2	3	PD6	WARNING, DO NOT OPERATE EQUIP.	
3	2	PD7	HOIST USAGE INSTRUCTIONS	
4	1	PD55	DECAL, WARNING- DO NOT RAISE	
5	3	PD19	DANGER, WHEN OPERATING THIS UNIT	
6	2	PD34	HOIST-WINCH-AUX	
7	4	PD35	DANGER, PINCH POINT	
8	1	PD5	CAUTION, NEVER ALLOW ANY PERSON	
9	2	PD3	HOIST PROP OPERATING INSTR.	
10	2	PD56	DECAL, DO NOT REMOVE THIS HOLD	
11	2	PD11	DANGER, ROATATING SHAFTS	
12	1	PD2	CAUTION, DO NOT EXCEED 1600 RPM	
13	1	PP12	TAG,GALFAB S/N	
14	3	PD68	DECAL, EQUIPMENT LOGO (GALFAB)	
15	2	PD71	DECAL, CAUTION STAND CLEAR	
16	1	PD72	DECAL WARNING,HOIST UP	
17	1	PD28	DANGER,DO NOT USE THIS HOIST	
18	1	PD69	DECAL, DANGER DO NOT ATTEMPT	
19	1	PD70	DECAL, WARNING THIS HOIST MUST	
20	1	PD75	DECAL, DO NOT STEP	
21	1	PD67	DECAL, FILL TO LINE	

REVISION HISTORY

REV	DESCRIPTION	DATE	BY
R1	ADDED DO NOT STEP (PD75)	7/29/15	GB

Wastebuilt

DESCRIPTION: DECAL LOCATION OR60174/194 HOIST

APPROX WGHT: X lbs | DO NOT SCALE DRAWING | DIRECTORY: IS | GALFAB

REFERENCE: -- | DATE: 3/10/15 | BY: GB

SHT SIZE: B | SHT NO: 1 of 1 | DWG NO: IS546

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF WASTEBUILT AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO WASTEBUILT.

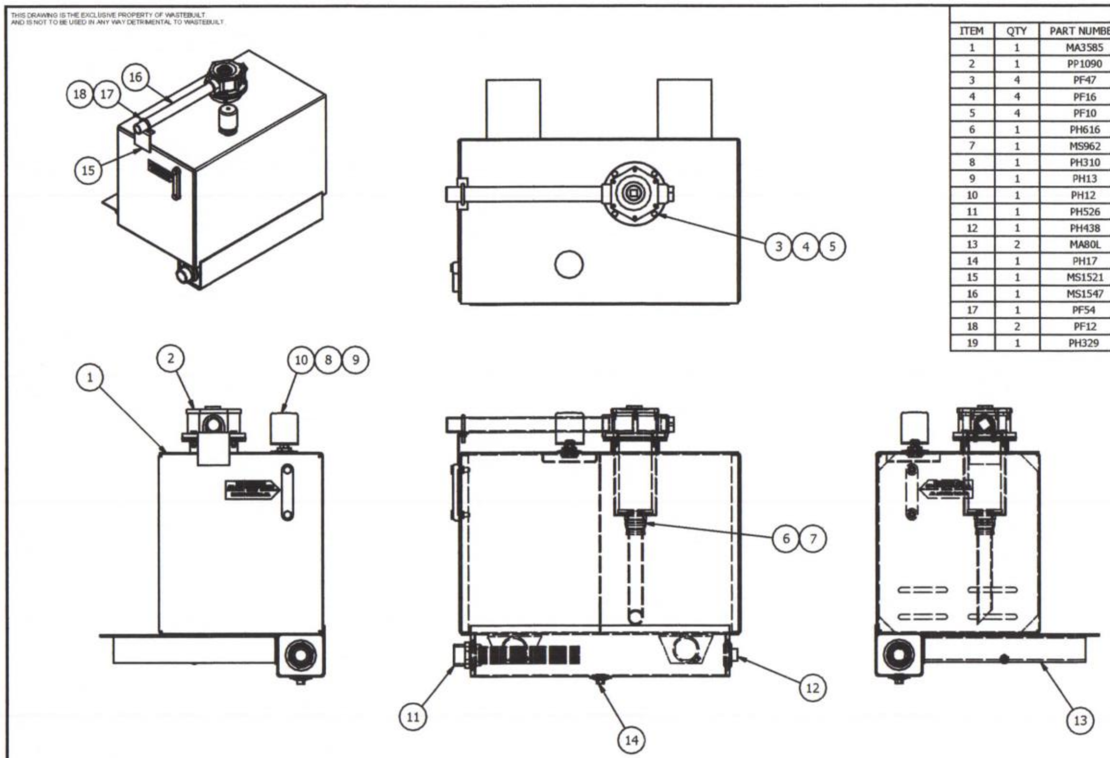
SIDE MOUNT OIL TANK UPGRADES
REF IS 564 OIL TANK ASS'Y 48 GAL SIDE MTG - NEW (MA 4221)
REF IS 565 OIL TANK ASS'Y 52 GAL - OLD (MA 960)

THE NEW 48 GAL OIL TANK HAS A NEW SUMP LOCATION, THE SUMP RUNS PARALLEL TO THE TRUCK CHASSIS ALLOWING FOR IMPROVED ACCESS TO THE SHUT OFF VALVE. THE NEW SUMP LOCATION ALSO ALLOWS THE TANK TO BE BOTH STREET OR CURB SIDE ELIMINATING THE NEED FOR 2 SEPARATE DESIGNS.

THE MA 80 SUPPORTS AND THE 84" PIPES WILL BE USED AS IN THE PAST, NO CHANGE.

DESCRIPTION: OIL TANK CHANGE			
APPROX WGHT: N/A	DO NOT SCALE DRAWING	DIRECTORY: IS	
REFERENCE:		DATE: 6/17/2015	BY: BG
SHT SIZE B	SHT NO: 1 of 3	DWG NO: IS565/IS564	

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF WASTEBUILT AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO WASTEBUILT



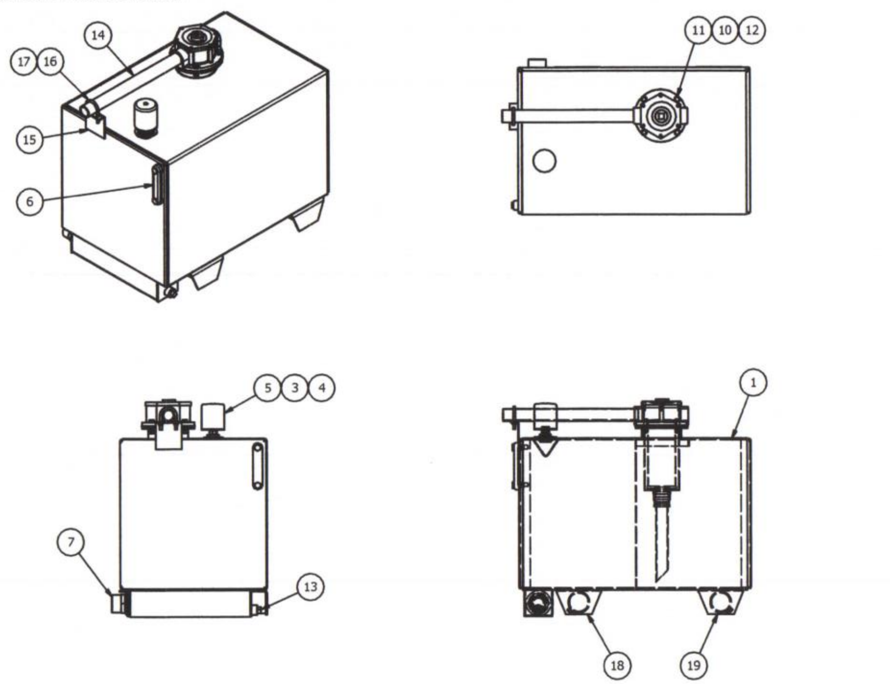
PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION	WGHT
1	1	MA3585	OIL TANK ASS'Y,48 GAL W/SUMP	135.38
2	1	PP1090	FILTER ASS'Y W/ELEMENT	12.82
3	4	PF47	HHCS G5 NC 3/8" X 1 1/2" BOLT	.26
4	4	PF16	WASHER FLAT 3/8"	.04
5	4	PF10	LOCKNUT G5 NC 3/8"	.25
6	1	PH616	PIPE RED 1 1/2" - 1 1/4" NPT	.72
7	1	MS962	RETURN PIPE, OIL TANK	2
8	1	PH310	RE BU 1 1/4" MPTX1/2"FPT,SCH40	.5
9	1	PH13	ADP UN #8 MOR X 1/2 MPT	.25
10	1	PH12	AIR FILTER CARTRIDGE	.25
11	1	PH526	FILTER, SUCTION, 2" OD, 2" NPT	.25
12	1	PH438	PLUG,PIPE 2" SQ,HD,	1.43
13	2	MA80L	MTG BRKT,OIL TANK BESIDE FRAME LH	30.77
14	1	PH17	PLUG, PIPE 3/4", SQ HD	.16
15	1	MS1521	U-BOLT BRKT,(1) 5/16" X 2"	.59
16	1	MS1547	1 1/4" SCH 40 PIPE X 18" TBE	3.4
17	1	PF54	U BOLT 5/16" X 2 3/4" X 1 3/4"	.15
18	2	PF12	LOCKNUT G5 NC 5/16"	.02
19	1	PH329	PLUG, PIPE 1 1/2", SQ HD	.75

Wastebuilt

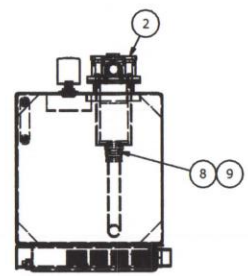
DESCRIPTION: OIL TANK ASS'Y, 48 GA SIDE MTG			
APPROX WGHT: N/A	DO NOT SCALE DRAWING	DIRECTORY: IS	
REFERENCE: MA4221		DATE: 6/17/2015	BY: GAB
SHT SIZE B	SHT NO: 1 of 1	DWG NO: IS564	

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AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO WASTEBUILT.



PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION	WGHT
1	1	MA883	OIL TANK,52 GAL BESIDE FRAME	150.17
2	1	PP1090	FILTER ASS'Y W/ELEMENT	12.82
3	1	PH310	RE BU 1 1/4" MPTX1/2"FPT,SCH40	.5
4	1	PH13	ADP UN #8 MOR X 1/2 MPT	.25
5	1	PH12	AIR FILTER CARTRIDGE	.25
6	1	PH8	GAUGE, OIL LEVEL - 5"	.18
7	1	PH526	FILTER, SUCTION, 2" OD, 2" NPT	.25
8	1	PH616	PIPE RED 1 1/2" - 1 1/4" NPT	.72
9	1	MS962	RETURN PIPE, OIL TANK	2
10	4	PF16	WASHER FLAT 3/8"	.04
11	4	PF47	HHCS G5 NC 3/8" X 1 1/2" BOLT	.26
12	4	PF10	LOCKNUT G5 NC 3/8"	.25
13	1	PH17	PLUG, PIPE 3/4", SQ HD	.16
14	1	MS1547	1 1/4" SCH 40 PIPE X 18" TBE	3.4
15	1	MS1521	U-BOLT BRKT,(1) 5/16" X 2"	.59
16	1	PF54	U BOLT 5/16" X 2 3/4" X 1 3/4"	.15
17	2	PF12	LOCKNUT G5 NC 5/16"	.02
18	1	MA80R	MTG BRKT,OIL TANK BESIDE FRAME RH	15.39
19	1	MA80L	MTG BRKT,OIL TANK BESIDE FRAME LH	15.39



Wastebuilt

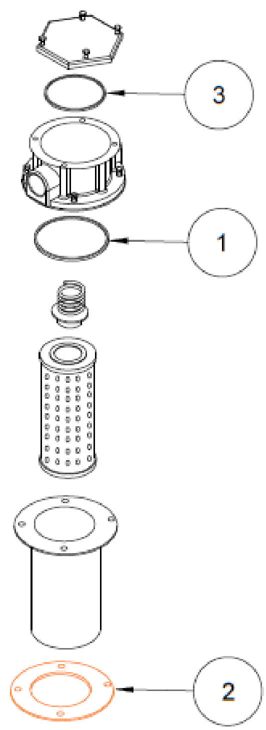
DESCRIPTION: OIL TANK ASS'Y 52 GAL

APPROX WGHT: N/A	DO NOT SCALE DRAWING	DIRECTORY: IS	
REFERENCE:		DATE: 6/17/2015	BY: GAB
SHT SIZE B	SHT NO: 1 of 1	DWG NO: IS565	

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PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION	WGHT
1	1	PP1305	O-RING, SQUARE, RETURN FILTER	--
2	1	PP1306	GASKET, RETURN FILTER	--
3	1	PP1307	O-RING, RETURN FILTER	--



REVISION HISTORY

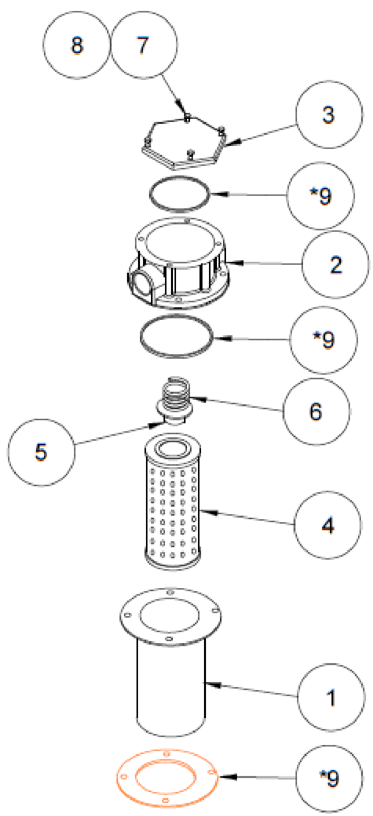
REV	DESCRIPTION	DATE	BY
0	PRELIMINARY	MM/DD/YY	--

Wastebuilt

DESCRIPTION: SEAL KIT, RETURN FILTER SCHROEDER

DO NOT SCALE DRAWING	DIRECTORY: P	GALFAB
REFERENCE: ---	DATE: 10/21/15	BY: GAB
SHT SIZE A	SHT NO: 1 of 1	DWG NO: PP1308

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PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION	WGHT
1	1		BOWL ASSEMBLY	---
2	1		HEAD W/GAGE PORT	---
3	1		CAP ASSEMBLY	---
4	1	PP1091	ELEMENT	---
5	1		BYPASS VALVE ASSEMBLY	---
6	1		SPRING	---
7	4		CAPSCREW	---
8	4		LOCKWASHER	---
*9	1	PP1308	SEAL KIT	---

Wastebuilt

DESCRIPTION: RETURN FILTER (PP1090)
SCHROEDER

DO NOT SCALE DRAWING | DIRECTORY: IS | GALFAB

REFERENCE: --- | DATE: 10/21/15 | BY: GAB

SHT SIZE A | SHT NO: 1 of 1 | DWG NO: IS1600

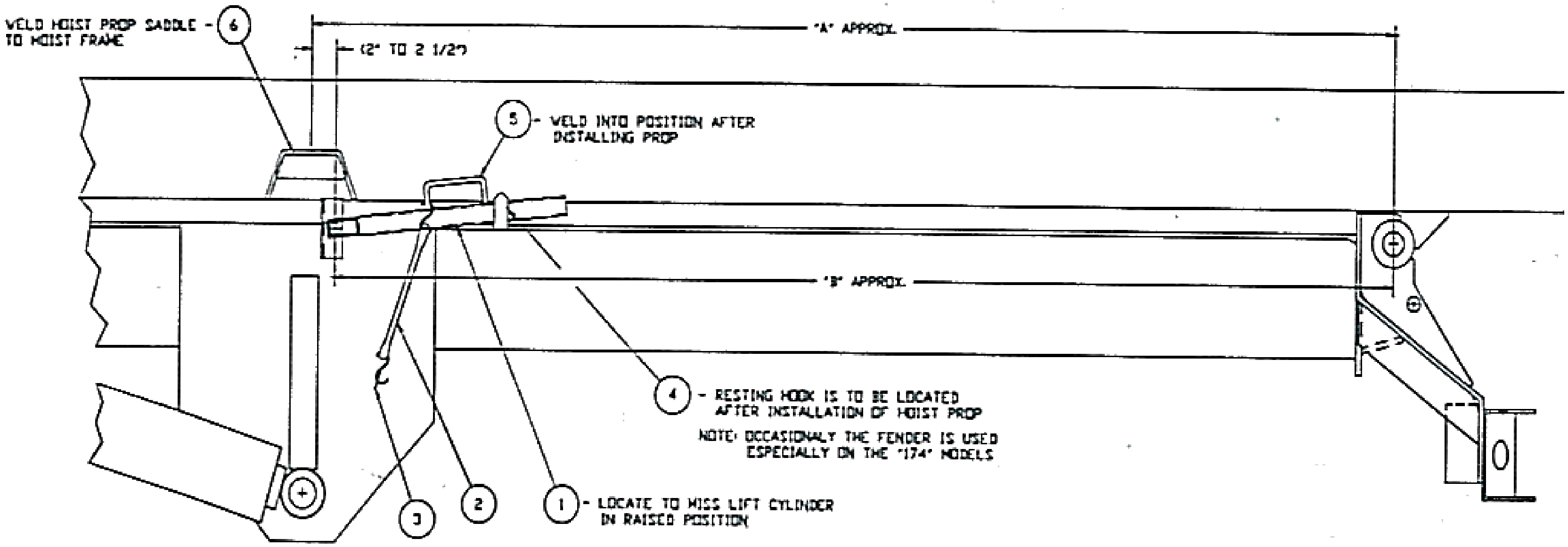
REVISION HISTORY

REV	DESCRIPTION	DATE	BY
0	PRELIMINARY	MM/DD/YY	---


FILL TO LINE WITH ALL CYLINDERS RETRACTED
FILL LINE
DO NOT OVERFILL OIL
GALFAB
CAUTION
DO NOT STEP
Oil fill level with all cylinders retracted

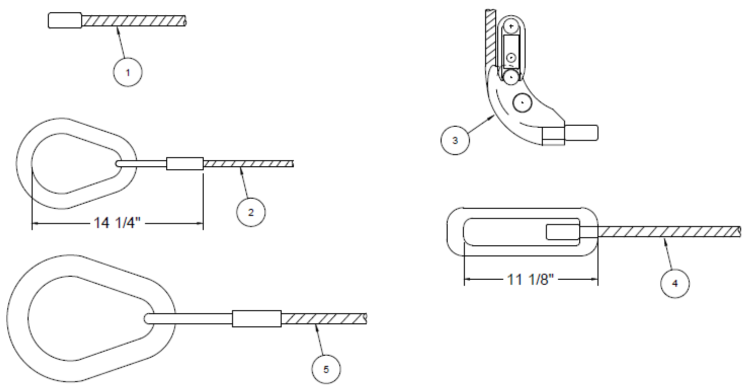
HOIST MODELS

	DL4-174S DL5-174S EH4-174S EH5-174S HH4-174S HH5-174S IH5-174S	DL4-156S IO6-174S DL5-156S IO5-182S EH4-156S IO6-182S EX5-156S IO6-186S EX6-156S OR5-156S EX5-174S OR6-156S EX6-174S OR5-174S HH4-156S OR6-174S HH5-156S OR6-178S IO5-156S OR6-182S IO6-156S ORSB174S IO5-174S	IH4-156S IH5-156S MM4-156S MM5-156S MM5-174S	DL5-194S HH5-174T HH5-194S HH5-194T	EX6-174T EX6-194S EX6-194T IO6-174T IO6-194S OR6-174T OR6-194S OR6-194T ORSB198T
DIM. "A"	92"	99 1/4"	105"	140"	145"
DIM. "B"	90"	97"	103"	138"	143"



HOIST PROP
ROLL-OFF HOIST
MA141

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ITEM	PART #	PART DESCRIPTION
1	PP948	7/8" X 71' CABLE WITH SWEDGED END
1	PP949	7/8" X 78' CABLE WITH SWEDGED END
2	PP612	5/8" X 70' CABLE WITH PEAR EYE (SINGLE AXLE)
3	MA153	DEADLIFT KNUCKLE HOOK LINK
4	PP341	HEAVY DUTY SWIVEL EYE HOOK
5	PP1284	7/8" X 71' CABLE WITH PEAR EYE
5	PP1313	7/8" X 78' CABLE WITH PEAR EYE

REVISION HISTORY

REV	DESCRIPTION	DATE	BY
R2	UP DATED	12/2017	BG

Wastebuilt

DESCRIPTION: HOIST CABLE ENDS

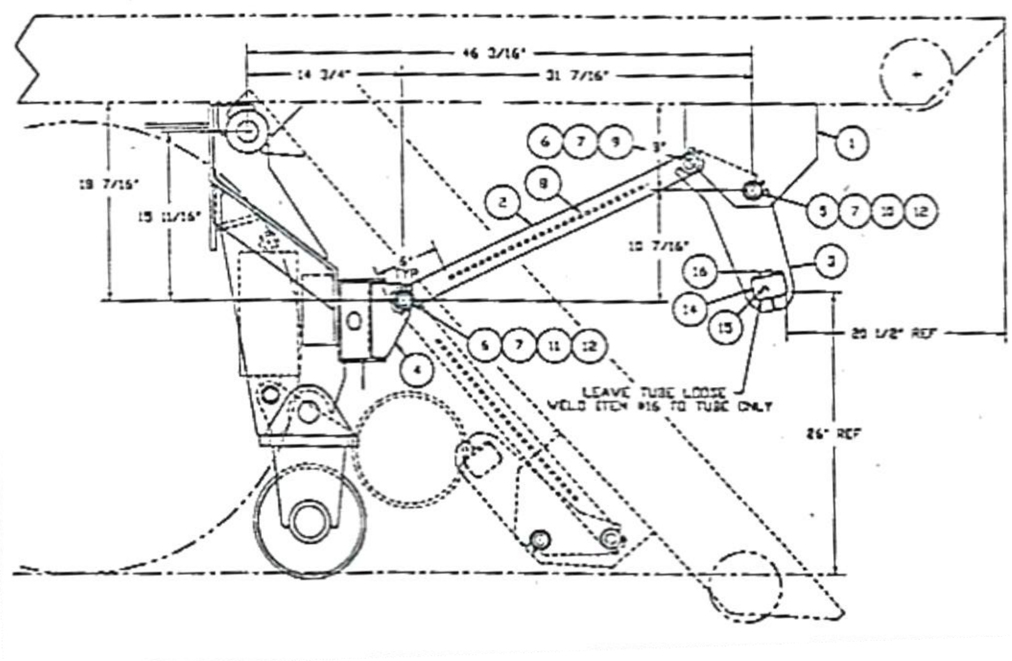
DO NOT SCALE DRAWING | DIRECTORY: IS | GALFAB

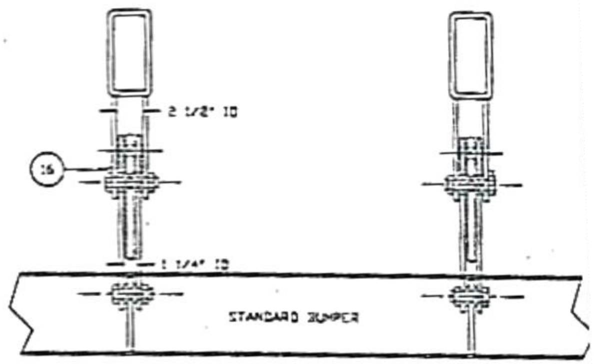
REFERENCE: --- | DATE: 5/7/15 | BY: GAB

SHT SIZE A | SHT NO: 1 of 1 | DWG NO: IS560

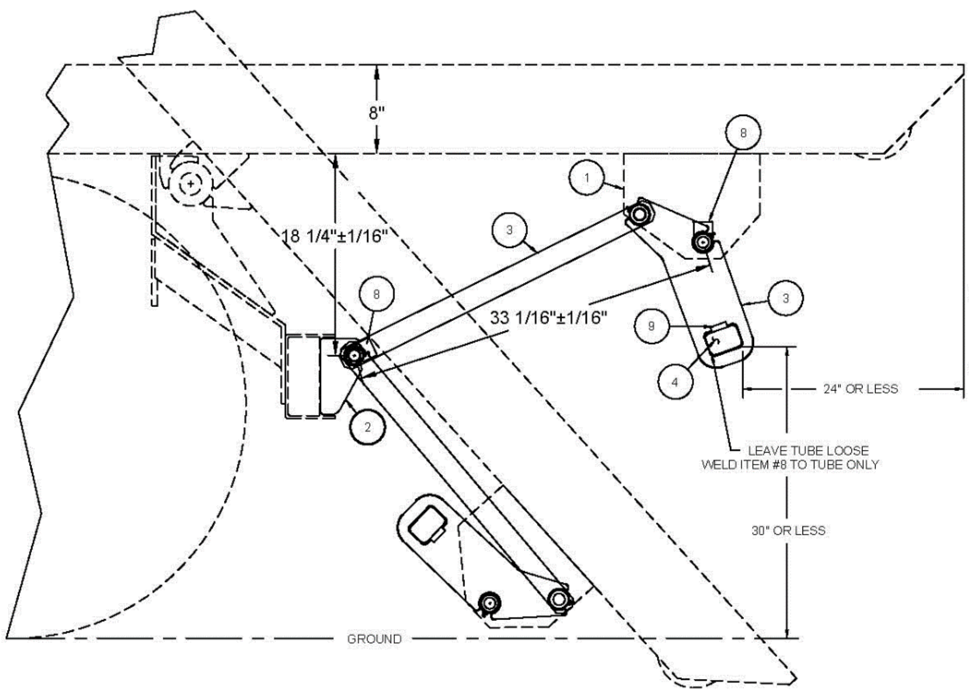
AUTO FOLD-UP ICC BUMPER

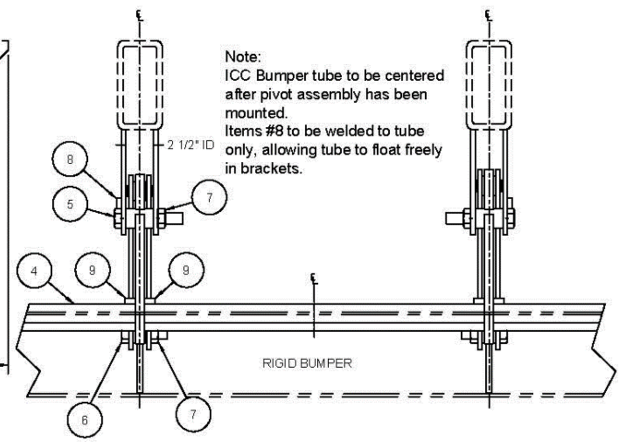
Item Number	Quantity	Part Number	Description
1		MS1183	PIVOT PLATE
2		MS1184	CONNECTING LING
3		MB302	PIVOT ARM
4		MB300	MOUNTING BASE
5		MS1185	PIVOT COLLAR
6		MS1186	CONNECTING COLLAR
7		PP383	SELF THREAD GREASE FITTING
8		RB142-19.25	1/2" x 1 1/2" HRS
9		RR214-2.375	1" DIAMETER CRS
10		PF83	HHCS G5 NC 1" x 5"
11		PF131	HHCS G5 NC 1" x 3 1/2"
12		PF85	LOCKNUT G5 NC 1"
13		RS104	3/8"HRS PLATE
14		RT112-60	RECTANGULAR TUBING
15		RS410	12GA HRS SHEET
16		RB143-2	1/2" x 1" HRS





PART LIST			
No.	Description	Part No.	Quantity
* 1	PIVOT PLATE	MS1183	4
2	BUMPER MOUNT	MA884	2
3	PIVOT ASSEMBLY	MA885	2
4	BUMPER TUBE	MA956	1
5	HHCS G5 NC 1" X 5 1/2"	PF116	2
6	HHCS G5 NC 1" X 3 1/2"	PF131	2
7	LOCKNUT G5 NC 1"	PF243	4
8	BOLT RETAINER	MB577	4
9	1/2" HRS 1" X 1 1/2"	MR65	4



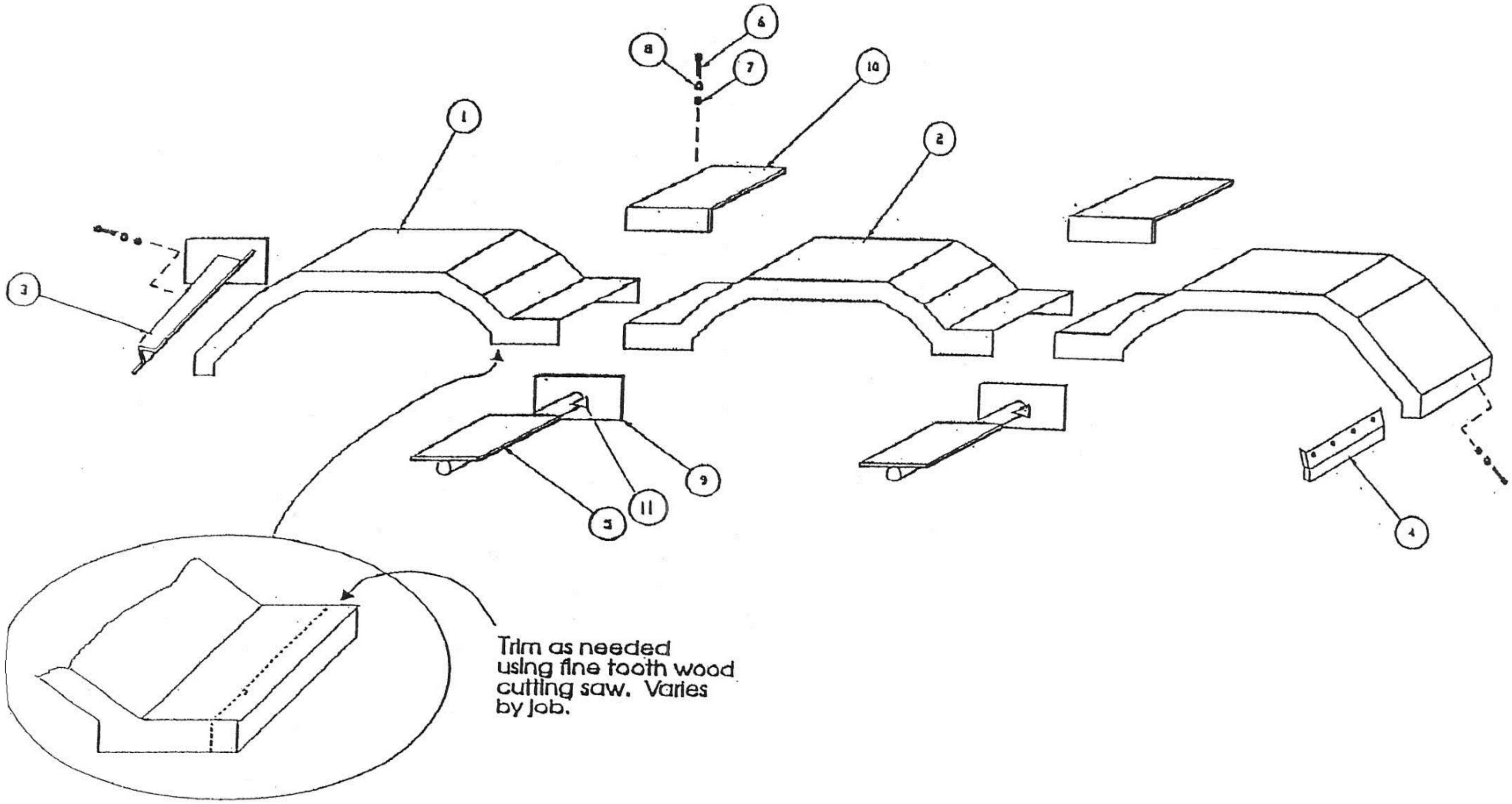


FENDER KIT - POLY TRIAXLE

ITEM NUMBER	QUANTITY	PART NUMBER	DESCRIPTION
1	4	PP27	FRONT & REAR FENDER SECTION
2	2	PP71	CENTER FENDER SECTION
3	2	MS13825	FRONT FENDER MOUNTING BRACKET
4	2	MS1359	REAR FENDER MOUNTING BRACKET
5*	4	MA937	CENTER FENDER MOUNTING BRACKET
6	48	PF32	GR5 5/16" x 1" BOLT
7	48	PF12	GR5 5/16" NC LOCK NUT
8	48	PF38	5/16" WASHER
9	6	MS955	MOUNTING BRACKET
10*	4	MS957	CENTER COVER PLATE
11	8	MC260	GUSSET

OPTION FOR AXLE SPREAD UNDER 55"

5*	4	MA938	CENTER FENDER MOUNTING BRACKET
10*	4	MS956	CENTER COVER PLATE


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Trim as needed
using fine tooth wood
cutting saw. Varies
by job.

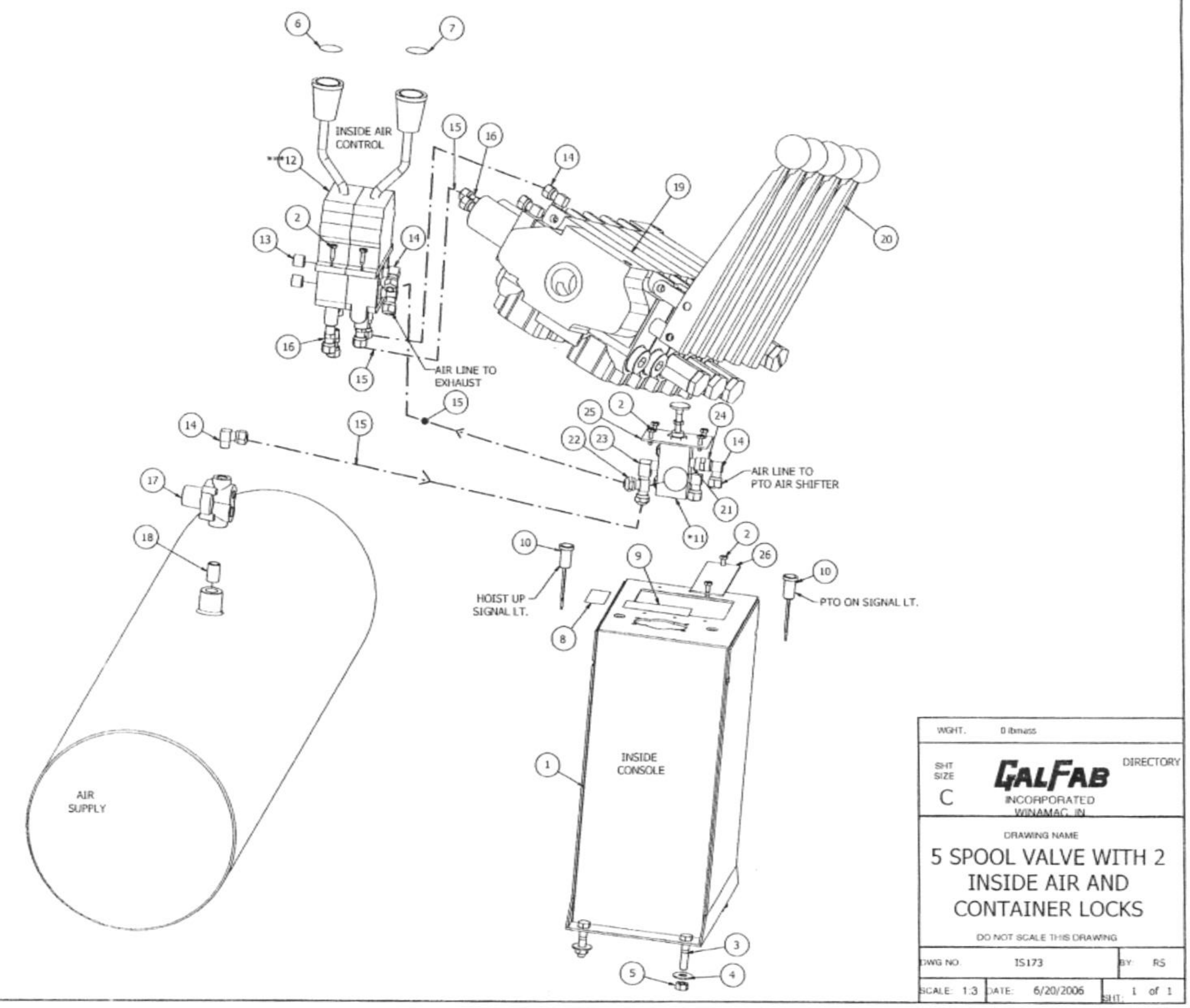
5 SPOOL VALVE WITH 2 INSIDE AIR CONTROL KIT AND CONTAINER LOCKS IS 173

ITEM NUMBER	QUANTITY	PART NUMBER	DESCRIPTION
1	1	PP511	AIR CONTROL CONSOLE
2	10	PF171	8-32 X 5/8" SELF TAP SCREW
3	4	PF33	5/16" X 1 ½" BOLT
4	4	PF15	5/16" FLAT WASHER
5	4	PF12	5/16" LOCKNUT
6	1	PD33AH	DECAL, HOIST RAISE/LOWER
7	1	PD33AW	DECAL, WINCH ON/OFF
8	1	PD29	DECAL, HOIST UP
9	1	PD45	DECAL, PTO/CONTAINER LOCK
10	2	PP42	SIGNAL LIGHT
*11	1	PP309	4 WAY 2 POSITION VALVE
***12	1	PH581	AIR CONTROLLER IN CAB
13	2	PP188	1/8" PLUG
14	7	PP116	90 DEG ¼" TO 1/8" AIR FITTING
15	70 FT	PP73	¼" AIR LINE
16	6	PP106	¼" TO 1/8" AIR CONNECTORS
17	1	PH411	PRESSURE PROTECTION VALVE
18	1	PP158	¼" NIPPLE
19	1	PH802	5 SPOOL CONTROL VALVE/ 2 AIR
20	5	PH28	VALVE HANDLE
21	1	PP157	1/8" BRASS NIPPLE, CLOSE
22	1	PP130	MALE RUN TEE ¼" X 1/8" BRASS
23	1	PP166	STREET EL 90 DEG 1/8" BRASS
24	1	PP149	FEMALE COUPLING 1/8" BRASS
25	1	MS2385	CONSOLE PTO/LOCK FILLER PLT
26	1	MS1850	COVER PLATE, INSIDE CONTROL

* INCLUDED WITH PTO

*** CHECK WITH FACTORY FOR CURRENT MODEL AND NUMBER OF SPOOLS

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AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO GALFAB, INC.



WGHT.	0 lbmass				
SHT SIZE C	GALFAB INCORPORATED WINAMAC, IN			DIRECTORY	
DRAWING NAME 5 SPOOL VALVE WITH 2 INSIDE AIR AND CONTAINER LOCKS DO NOT SCALE THIS DRAWING					
DWG NO.	IS173			BY:	RS
SCALE: 1:3	DATE:	6/20/2006		SHT:	1 of 1

Job Number	Serial Number		Model Number
22623	**5107**		**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**	**1**	**LIFT CYLINDERS**
29	PH 795	2	HYD T,3/4" MJ (ALL ENDS)
64	PC 277	2	HYD CYL 6"-5"-4" X 121"(LIFT)
71	PH 837	2	ML EL 90°,#12 MOR X 3/4 MJ
76	PH 787	4	SWIVEL 3/4" MJ X 3/4" FJ
85	PH 885	2	HYD EL,3/4 MJ X #16 MOR 90°
1	**MISC**	**1**	**HOSES**
52	PH 554	6	HOSE, 2" LOW PRESSURE X 72"
1	**MISC**	**1**	**OIL RESERVOIR**
12	PH 438	1	PLUG,PIPE 2",SQ HD
53	PH 556	1	HOSE BRB 2 TO 2 MPT
54	PH 527	1	FM EL 2" SCH 40 BLK X 45°
55	PH 850	1	BALL VALVE,2" BRASS
56	PH 943	1	PIPE NIP 2" SCH 80 X CLS
65	MA 883	1	OIL TANK,52 GAL BESIDE FRAME-
66	PH 13	1	ADP UN #8 MOR X 1/2 MPT
68	PP 1090	1	FILTER ASSY WITH ELEMENT
68	MS 962	1	RETURN PIPE,OIL TANK-1.25X10.5
69	PH 1150	1	FILTER,STEEL,SUCT,2"OD,2" NPT
77	PH 1	1	FM EL 1 1/4" SCH 40 BLK X 90°
78	PH 328	1	HOSE BRB 1 1/4 TO 1 1/4 MPT,LP
79	PH 11	1	FLTR ELEMENT,PH10
80	PH 8	1	GAUGE, OIL LEVEL (5")
89	PH 310	1	RE BU 1 1/4" MPTX1/2"FPT,SCH40
90	PH 329	1	PLUG, PIPE 1 1/2", SQ HD
91	PH 951	2	HOSE CLAMP 2" H.D.
92	PH 33	4	HOSE CLAMP 1 1/4"
1	**MISC**	**1**	**PUMP**
48	PH 881	1	HYD ADP,#20 MOR X 1 MJ
49	PH 1071	1	PUMP,2 1/2"GEAR,1" 15 SPLINE
51	MS 4274	1	HOSE BRB 2 TO #20 MOR
51	PH 950	1	O-RING,#20
1	**MISC**	**1**	**VALVE**
9	PF 10	3	LOCKNUT G5 NC 3/8"
10	PH 95	4	FM EL 3/4" X 45° SW
23	PF 57	3	HHCS G5 NC 3/8" X 4"
26	PH 1067	1	QUICK DISCONNECT, HYD 1/4"

28	PH 797	4	HYD ADP,#12 MOR X 3/4 MJ
42	PH 365	1	HOSE BRB 1 1/4" TO 1" NPT,
43	PH 520	1	CONN #16 MOR X 1 FPT
44	PH 802	1	VALVE,5 SPL-2 W/I.S. AIR CONT
45	PH 890	1	HYD EL,1 MJ X #16 MOR 45°
81	PH 28	2	VALVE HANDLE FOR VA20 VALVE
87	PH 70	1	PLUG, HYD #16 O-RING
87	MS 3931	1	PLUG, HYD #16 O-RING/1/4" HOLE
88	PP 264	1	PIPE PLUG 1/4" NPT SOCKHD

Job Number	Serial Number	Model Number
22623	**5107**	**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**	**1**	**HOIST BUILDING**
5	MH 158	2	3/4" HOSE,MOR & MPT X 13.5"
6	PH 127	4	ADP UN 3/4 MPT X 3/4 FPT SW
7	PH 63	2	FM TEE 3/4" NPT
10	MH 119	2	3/4" HOSE,MOR & MPT X 25"
11	MS 1605	2	3/4" SCH 40 PIPE X 92.5" TBE
13	MH 168	2	3/4" HOSE,MPT & FPT X 29.5"
14	PH 95	4	FM EL 3/4" X 45° SW
15	MS 1608	2	3/4" SCH 40 PIPE X 186" TBE
25	MS 1596	2	3/4" SCH 40 PIPE X 25" TBE
63	PC 293	2	HYD CYL 7"-4"x 79 1/2"(WINCH)
1	MA 3185	1	APRON ASS'Y, 8" FRAME HOIST
	MS 6048	2	PIN-UP BRACKET. AUTO FOLD BUMP
	MS 212	1	REAR CROSS MEMBER,APRON
	MA 4604		MAIN FRAME,OR75174T121
1	RT 142	1	[] 8" X 4" X 1/2" X 278 1/4"
2	MA 539	1	FRONT SHEAVE FRAME,EX,IO,OR,SI
3	MA 3490	1	WINCH RAIL, EXTENDABLE TAIL
4	MA 66	1	UPPER LIFT BRKT,T MODEL STREET
5	MB 28	2	FRONT STOP,OR,ORSB & EX
6	MS 27	1	WINCH CYL SUPPORT
7	MA 12	1	CABLE GUIDE,HOIST
8	MR 55	1	[] 8" X 4" X 1/4" X 27 7/16"
	MR 55	1	[] 8" X 4" X 1/4" X 27 7/16"
9	MS 101	2	MOUNT,TAIL ROLLER
10	MA 583	2	REAR HINGE ASS'Y,M.F. 2 1/2"
11	MS 4386	8	SIDE ROLLER MT,FORMED
12	MA 4	1	FRONT LOCK,OR,EX,HH & SI
15	MB 56	2	REAR HOLD DOWN,SI-OR-IO-EX &
16	MS 5471	1	END CAP, CURB, OR-8" FRAME
17	MA 67	1	UPPER LIFT BRKT,T MODEL CURB
18	MS 48	1	MOUNT,NAME PLATE
19	MS 5470	1	END CAP, STREET, OR-8" FRAME
20	MR 271	2	1/4" HRS 4" X 58"
21	MC 127	2	REAR WING,HOIST
22	MR 272	2	3/4" HRS 4" X 57"
23	MC 129	4	GUSSET,REAR WING

24	MS 5710	1	REAR WING SUPP OR HST-LEFT
25	MS 3422	1	REAR WING SUPP OR HST-FORMED
26	MS 830	1	WINCH CYL BRACE
1	RT 142	1	[] 8" X 4" X 1/2" X 278 1/4"
28	MC 508	2	CAP,FORMED OR TAIL BRACE
29	MR 1464	2	1/2" X 3 1/2" M1044 X 228"
30	MS 2408	1	TAIL ROLLER COVER,NOR75182S081
31	MS 4906	2	END PLATE, HOIST TOP SKID RAIL
	MA 3581		174 S & T SUB FRAME
1	MR 883	2	[] 3" X 2" X 1/4" X 203 1/2"
2	MR 2151	2	CROSS BAR-HOIST SUB FRAME
3	MR 2152	1	FRONT CROSS BAR- SUB FRAME
	MS 877	3	SHEAVE SHAFT,2 1/2"
	MA 50	3	SHEAVE ASS'Y,10 OD,7/8 CABLE,
	MA 927	2	SHEAVE BLOCK ASS'Y,10" SHEAVE
	MA 3258	8	SHAFT ASS'Y,BOLT ON-4 X 2 X 3
	MA 71	1	TAIL ROLLER,HOIST
	PP 1024	8	SIDE ROLLER,BOLT ON 4 OD X 2
	MA 530	1	CABLE ANCHOR PIN,STD
	PF 57	6	HHCS G5 NC 3/8" X 4"
	PF 10	23	LOCKNUT G5 NC 3/8"
	PF 81	12	HHCS G5 NC 3/8" X 1 1/4"
	PF 265	16	HHCS G5 1/2" X 3/4" FLANGE
	PF 35	4	HHCS G5 NC 3/4" X 4 1/2"
	PF 20	2	HHCS G5 NF 5/8" X 4"
	PF 8	6	LOCKNUT G5 NC 3/4"
	PF 2	2	LOCKNUT G5 NF 5/8"
	PF 106	2	HHCS G5 NC 1/2" X 5"
	PF 1	4	CABLE CLAMP,7/8"
	PF 29	3	HHCS G5 NC 1/2" X 1 1/2"
	PF 27	4	HHCS G5 NC 3/8" X 3 1/2"
	PF 9	3	LOCKNUT G5 NC 1/2"
	PF 62	1	COTTER PIN 1/4" X 2 1/2"
	MS 114	1	SHAFT,TAIL ROLLER
	MS 1026	2	PIN,REAR HINGE,2 1/2" DIA
	MS 358	4	COLLAR,2 1/2" REAR HINGE & IX
	MS 963	1	FRONT END PLATE,FRONT SHEAVE
	PP 948	1	CABLE 7/8 X 71' W/SWEDGED END
	PP 341	1	SWIVEL EYE HOOK,HEAVY DUTY
1	MA 926	2	FOLD DOWN STOP ASS'Y,OR
11	MB 1112	2	FOLD DOWN STOP, OR WEAR STRIP
	MR 2152	1	FRONT CROSS BAR- SUB FRAME

Job Number	Serial Number		Model Number
22623	5107		OR75174T121
Line Number	Part Number	Quantity	Description
1	MISC		VALVE
87	PH 70	1	PLUG, HYD #16 O-RING
87	MS 3931	1	PLUG, HYD #16 O-RING/1/4" HOLE
88	PP 264	1	PIPE PLUG 1/4" NPT SOCKHD
96	PH 57	2	ST EL #12 ADJ OR X 3/4FPT SW45
44	PH 802	1	VALVE,5 SPL-2 W/I.S. AIR CONT
23	PF 57	3	HHCS G5 NC 3/8" X 4"
9	PF 10	3	LOCKNUT G5 NC 3/8"
	PP 116	2	ML EL 90° 1/4" X 1/8" BRASS
	PP 106	2	ML CONN 1/4" X 1/8" BRASS
45	PH 890	1	HYD EL,1 MJ X #16 MOR 45°
43	PH 520	1	CONN #16 MOR X 1 FPT
28	PH 797	4	HYD ADP,#12 MOR X 3/4 MJ
10	PH 95	4	FM EL 3/4" X 45° SW
26	PH 1067	1	QUICK DISCONNECT, HYD 1/4"
42	PH 365	1	HOSE BRB 1 1/4" TO 1" NPT,
	PH 69	6	PLUG,HYD #12 O-RING
44	PH 802	1	VALVE,5 SPL-2 W/I.S. AIR CONT
	PH 28	5	VALVE HANDLE,VA20 VALVE
	PH 777	5	NEEDLE VALVE,1/2"BAR STOCK
	PH 948	6	HYD ADP,#12 MOR X 3/8 MJ
	PH 923	5	HYD ADP,1/4 MPT X 3/8 FJ SW
	PH 755	5	ML CONN 3/8" MJ X 1/4" MPT

Job Number	Serial Number		Model Number
22623	**5107**		**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**		**SHIP LOOSE KIT**
	MA 2179	1	VALVE MTG BRKT, 4 & 5 SPOOL
	PP 1036	1	CONSOLE,AIR CONT-COMPLETE 2 SP
	MA 2179	1	VALVE MTG BRKT, 4 & 5 SPOOL
	PP 1036	1	CONSOLE,AIR CONT-COMPLETE 2 SP
65	MA 3585	1	OIL TANK ASS'Y,48 GAL W/SUMP
68	PP 1090	1	FILTER ASSY WITH ELEMENT
	MA 55	2	MTG ASS'Y,OIL TANK & TOOL BOX
	MA 80	2	MTG BRKT,OIL TANK BESIDE FRAME
2	MA 2812	1	SPLIT BUMPER W/RECESS LIGHT-1
13	MA 4211	1	SPLIT BUMPER W/RECESS LIGHT-1
3	MS 4399	1	PINTLE HOOK MTG PLATE,PINT RDY
8	MS 4892	1	3 LIGHT BAR/LICENSE PLATE
12	PF 271	4	RIBDNUTSRT SM 1/4-20 (BRASS)
2	MA 884	2	BUMPER MOUNT,AUTO FOLD
3	MA 885	2	PIVOT ASS'Y,AUTO FOLD BUMPER
8	MB 577	2	BOLT RETAINER
9	MR 65	4	1/2" HRS 1" X 1 1/2"
	PP 989	1	LIGHT SYS LED,HOIST,COMPLETE
	MS 3719	2	MID BODY LIGHT MTG BRKT,POLY
	MS 4293	1	MTG BRKT,PROXIMITY SWITCH
1	MA 907	2	SAFETY PROP,HOIST
6	MA 908	2	PROP SADDLE,HOIST
7	K 1	1	Hoist Prop Kit
	PP 817	1	TOOL BOX ALUM DIA PLT 18X18X36
	MA 80	2	MTG BRKT,OIL TANK BESIDE FRAME
	MA 1670	2	MAIN ASS'Y,HOOKER CONT. HOLD
	MR 2	2	1/2" SCH 40 PIPE X 42"
	PF 12	4	LOCKNUT G5 NC 5/16"
	PF 77	4	HHCS G5 NC 5/16" X 1 1/4"
	PP 187	1	WIRE LOOM 1/2" SPLIT POLY X 48
	PP 74		TIE, 6" NYLON
	MS 4336	1	LICENSE PLATE MOUNT W/LIGHT
	MA 918		FENDER KIT,POLY TRI-AXLE
1	PP 27-BLK	4	FENDER POLY FRONT/BACK BLK
2	PP 71-BLK	2	FENDER POLY CENTER BLK
3	MS 924	2	FENDER MT, FRONT
4	MS 1359	2	FENDER MT, REAR, MED TIRE-5.5"

5	MA 937	4	MTG BRKT,CENTER FENDER, 55" &
6	PF 87	1	BOLT KIT, TRI-AXLE FENDERS
9	MS 955	6	MTG PLATE, FRONT & CENTER
10	MS 957	2	COVER PLATE,CENTER FENDER,12"
10	MS 956	2	COVER PLATE,CENTER FENDER, 8"
11	MC 260	8	GUSSET, CENTER FENDER MOUNT
	MS 9	4	COLLAR,UPPER & LOWER LIFT CYL
	PF 28	4	HHCS G5 NC 1/2" X 4 1/2"
	PF 9	4	LOCKNUT G5 NC 1/2"
	MA 3929	1	LOWER LIFT BRKT "T" MODEL
	MA 4291	1	LOWER LIFT BRKT "T" MODEL
	MS 87	28	WASHER,4" X 2 1/2" X 1/8"
	MS 765	1	LOWER LIFT SHAFT-2.5" DIA
	MR 30	1	3" SCH 40 PIPE X 34"
	MS 282	2	SUB FRAME CLAMP,UPPER
	MS 283	2	SUB FRAME CLAMP,LOWER
	MS 284	4	SHIM,SUB FRAME CLAMP
	PP 535	2	MUD FLAP 24" X 14" ANTI-SAIL
	MS 917	4	MUD FLAP CLAMP
	PP 1144	1	PACKING CRATE
	PP 1199	1	BAG, SHIPOUT CRATE

Job Number	Serial Number	Model Number
22623	**5107**	**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**	**1**	**LIFT CYLINDERS**
29	PH 795	2	HYD T,3/4" MJ (ALL ENDS)
64	PC 277	2	HYD CYL 6"-5"-4" X 121"(LIFT)
71	PH 837	2	ML EL 90°,#12 MOR X 3/4 MJ
76	PH 787	4	SWIVEL 3/4" MJ X 3/4" FJ
85	PH 885	2	HYD EL,3/4 MJ X #16 MOR 90°
	MS 1048	1	U-BOLT BRKT,(4) 1 1/4"
	MR 78	1	[3" 4.1# X 3"
	PF 44	4	U BOLT 5/16" X 2 1/2" X 1 3/8"
	PF 12	8	LOCKNUT G5 NC 5/16"

Job Number	Serial Number		Model Number
22623	**5107**		**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**	**1**	**BOLTS**
4	PF 186	7	WASHER,FLAT 3/4" G8
6	PF 8	7	LOCKNUT G5 NC 3/4"
7	PF 127	7	HHCS G8 NC 3/4" X 2 1/2"
9	PF 81	4	HHCS G5 NC 3/8" X 1 1/4"
10	PF 16	8	WASHER,FLAT 3/8"
11	PF 10	4	LOCKNUT G5 NC 3/8"
5	PF 116	2	HHCS G5 NC 1" X 5 1/2"
			PIN ASS'Y,MANUAL FOLD-UP
6	MA 4709	2	BUMPR
7	PF 243	2	LOCKNUT 1"-8 NYLON
	K 2	1	BOLT KIT FOR STD OR

Job Number	Serial Number	Model Number
22623	**5107**	**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**	**1**	**OIL RESERVOIR**
53	PH 556	1	HOSE BRB 2 TO 2 MPT
54	PH 527	1	FM EL 2" SCH 40 BLK X 45°
55	PH 850	1	BALL VALVE,2" BRASS
56	PH 943	1	PIPE NIP 2" SCH 80 X CLS
65	MA 883	1	OIL TANK,52 GAL BESIDE FRAME-
66	PH 13	1	ADP UN #8 MOR X 1/2 MPT
68	PP 1090	1	FILTER ASSY WITH ELEMENT
69	PH 1150	1	FILTER,STEEL,SUCT,2"OD,2" NPT
77	PH 1	1	FM EL 1 1/4" SCH 40 BLK X 90°
78	PH 328	1	HOSE BRB 1 1/4 TO 1 1/4 MPT,LP
79	PH 11	1	FLTR ELEMENT,PH10
80	PH 8	1	GAUGE, OIL LEVEL (5")
89	PH 310	1	RE BU 1 1/4" MPTX1/2"FPT,SCH40
90	PH 329	1	PLUG, PIPE 1 1/2", SQ HD
91	PH 951	2	HOSE CLAMP 2" H.D.
92	PH 33	4	HOSE CLAMP 1 1/4"
	PF 47	4	HHCS G5 NC 3/8" X 1 1/2"
	PF 39	4	WASHER, LOCK SPLIT 3/8"
	PF 16	4	WASHER,FLAT 3/8"
	PF 54	1	U BOLT 5/16" X 2 3/4" X 1 3/4"
	PF 32	2	HHCS G5 NC 5/16" X 1"
	PF 12	2	LOCKNUT G5 NC 5/16"
	MS 1547	1	1.25" SCH 40 PIPE X 18" TBE
68	MS 962	1	RETURN PIPE,OIL TANK-1.25X10.5
	MS 1521	1	U-BOLT BRKT,(1) 5/16" X 2"
	PP 1156	1	DRAIN PLUG, MAGNETIC 3/4"
	PH 616	1	PIPE RED 1 1/2"-1 1/4"NPT
12	PH 438	1	PLUG,PIPE 2",SQ HD

	Serial Number		Model Number
22623	**5107**		**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**	**1**	**HOSES**
52	PH 554	6	HOSE, 2" LOW PRESSURE X 72"
	PH 303	35	HOSE,3/4"
	PH 304	7	HOSE,1"
	PH 316	3	HOSE,1 1/4" LP (SUCTION)
	PH 192	6	HOSE BRB 3/4 TO 3/4 MPT
	PH 150	4	HOSE BRB 3/4 TO 3/4 FJ SW 45°
	PH 153	2	HOSE BRB 3/4 TO 3/4 FJ SW 90°
	PH 134	2	HOSE BRB 1 TO 1 FJ SW
	PH 172	8	HOSE BRB 3/4 TO 3/4 FJ SW

Job Number	Serial Number	Model Number
22623	**5107**	**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**	**1**	**PUMP**
49	PH 1071	1	PUMP,2 1/2"GEAR,1" 15 SPLINE
	PF 29	4	HHCS G5 NC 1/2" X 1 1/2"
	PF 40	4	WASHER, LOCK SPLIT 1/2"
48	PH 881	1	HYD ADP,#20 MOR X 1 MJ
	MS 5073	1	PUMP SUPP BRKT,FORMED ANGLE
	MS 5074	1	PUMP SUPP BRKT,BOLT PLATE
51	MS 4274	1	HOSE BRB 2 TO #20 MOR
51	PH 950	1	O-RING,#20

Job Number	Serial Number	Model Number
22623	**5107**	**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**		**AIR CONTROLS**
	PP 1036	1	CONSOLE,AIR CONTROLS(AIRSHIFT)

Job Number	Serial Number	Model Number
22623	**5107**	**OR75174T121**

Line Number	Part Number	Quantity	Description
1	**MISC**		**DECALS**
1	DEC HSTTAPE	1	DECALS FOR HOIST TAPE
	DEC HST	1	DECALS FOR HOIST